Canon

imageRUNNER 5075 / 5065 / 5055 / 5050

Network Guide

Please read this guide before operating this product.
After you finish reading this guide, store it in a safe place for future reference.

ENG

imageRUNNER 5075/5065/5055/5050

Network Guide

Manuals for the Machine

The manuals for this machine are divided as follows. Please refer to them for detailed information.
The manuals supplied with optional equipment are included in the list below. Depending on the system configuration and product purchased, some manuals may not be needed.

Guides with this symbol are printed manuals.

Guides with this symbol are included on the accompanying CD-ROM. (See footnote on the next page.)

• **Quick Reference for Basic Operations**	**Easy Operation Guide**
• **Learn How to Use Your Machine** The Tutorial CD is a teaching aid, designed to help you learn the various functions of the machine.	**Tutorial CD**
• **Precautions for Using Your Machine** • **Troubleshooting** • **Specifications**	**Support Guide**
• **Basic Operations**	**Reference Guide**
• **Copying and Mail Box Instructions**	**Copying and Mail Box Guide**
• **Sending and Fax Instructions**	**Sending and Facsimile Guide**
• **Setting Up the Network Connection and Installing the CD-ROM Software**	**Network Quick Start Guide**
• **Remote User Interface Instructions**	**Remote UI Guide**
• **Network Connectivity and Setup Instructions**	**Network Guide (This Document)**
• **Network ScanGear Installation and Instructions**	**Network ScanGear User's Guide**
• **PS/PCL/UFR II Printer Instructions**	**PS/PCL/UFR II Printer Guide**
• **PCL Printer Driver Installation and Instructions**	**PCL Driver Guide**

- **PS Printer Driver Installation and Instructions** — **PS Driver Guide**
- **UFR II Printer Driver Installation and Instructions** — **UFR II Driver Guide**
- **Mac OS X PS Printer Driver Installation and Instructions** — **Mac PS Driver Guide**
- **Mac OS X UFR II Printer Driver Installation and Instructions** — **Mac UFR II Driver Guide**
- **Fax Driver Installation and Instructions** — **Fax Driver Guide**
- **Installing MEAP Applications and Using the Login Service** — **MEAP SMS Administrator Guide**

- To view the manual in PDF format, Adobe Reader/Acrobat Reader/Acrobat is required. If Adobe Reader/Acrobat Reader/Acrobat is not installed on your system, please download it from the Adobe Systems Incorporated website (http://www.adobe.com).
- The machine illustration on the cover may differ slightly from your machine.

How This Manual Is Organized

Chapter 1 Before You Start

Chapter 2 Settings Common to the Network Protocols

Chapter 3 Using a TCP/IP Network

Chapter 4 Using a NetWare Network (Windows)

Chapter 5 Using a NetBIOS Network

Chapter 6 Using an AppleTalk Network (Macintosh)

Chapter 7 Troubleshooting

Chapter 8 Appendix

Includes the network settings, specifications, glossary, and index.

Considerable effort has been made to ensure that this manual is free of inaccuracies and omissions. However, as we are constantly improving our products, if you need an exact specification, please contact Canon.

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Preface

Thank you for purchasing the Canon imageRUNNER 5075/5065/5055/5050. Please read this manual thoroughly before operating the product to familiarize yourself with its capabilities, and to make the most of its many functions. After reading this manual, store it in a safe place for future reference.

How To Use This Manual

Symbols Used in This Manual

The following symbols are used in this manual to explain procedures, restrictions, handling precautions, and instructions that should be observed for safety.

CAUTION	Indicates a caution concerning operations that may lead to injury to persons, or damage to property if not performed correctly. To use the machine safely, always pay attention to these cautions.
IMPORTANT	Indicates operational requirements and restrictions. Be sure to read these items carefully to operate the product correctly, and avoid damage to the product.
NOTE	Indicates a clarification of an operation, or contains additional explanations for a procedure. Reading these notes is highly recommended.

Keys and Buttons Used in This Manual

The following symbols and key/button names are a few examples of how keys and buttons to be clicked or pressed are expressed in this manual:

- Control Panel Keys: Key Icon (Key Name)

  Examples: (Start)

  (Stop)

- Touch Panel Display Keys: [Key Name]

  Examples: [Cancel]

  [Done]

- Buttons on Computer Operation Screens: [Button Name]

  Examples: [OK]

  [Add]

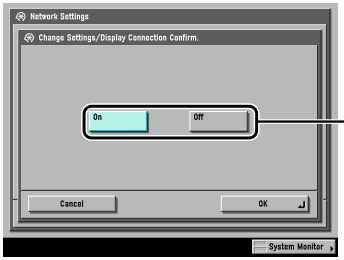
Displays Used in This Manual

Screen shots of the touch panel display used in this manual have been taken from the imageRUNNER 5075.

The keys or buttons which you should click or press are marked with a , as shown below.

When multiple buttons or keys can be clicked or pressed, they will be highlighted and mentioned in the order in which they should be clicked or pressed.

1 On the Network Settings screen, press [Change Settings/Display Connection Confirm.] → specify the following.



Press this key for operation.

Abbreviations Used in This Manual

In this manual, product names and model names are abbreviated as follows:

Microsoft® Windows® 98 operating system:	Windows 98
Microsoft® Windows® Millennium Edition operating system:	Windows Me
Microsoft® Windows® 2000 operating system:	Windows 2000
Microsoft® Windows® XP operating system:	Windows XP
Microsoft® Windows Server™ 2003 operating system:	Windows Server 2003
Microsoft® Windows Vista™ operating system:	Windows Vista
Microsoft® Windows® operating system:	Windows
PostScript®3 emulation:	PS
Novell NetWare®:	NetWare
Apple Macintosh:	Mac

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1 CHAPTER

Before You Start

This chapter describes what you need to know before you start using the machine, including the network environments with which the machine is compatible, and how to check the network environment you are using.

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- Using E-Mail/I-Fax 1-5
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- Sample Windows Network 1-9
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- Sample UNIX Network 1-10
- Using a Network with Various Types of Computers 1-11

Optional Equipment and System Requirements

This section describes the optional equipment and system environments with which the machine is compatible.

NOTE

By connecting the machine to the network, its settings and operations can be performed on computers using the Remote UI and other utilities, without the need for any optional equipment. For more information on the Remote UI, see the *Remote UI Guide*. For more information on utilities, see the *Reference Guide*.

Printing or Sending a Fax from a Computer

Optional Equipment Requirements

The following optional equipment is required for printing or sending a fax from a computer:

IMPORTANT

For more information on the equipment needed, consult your local authorized Canon dealer.

■ Printing

- If you want to use the UFR II/PCL printer driver
  - UFR II/PCL/PS Printer Kit
- If you want to use the PS printer driver (one of the following)
  - UFR II/PCL/PS Printer Kit
  - imagePASS

IMPORTANT

- You can only print with Windows 98/Me if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key.
- To print with Mac OS 9, you need to use a PS printer driver provided by Apple Inc. with the Mac OS, via an AppleTalk network.
- The optional UFR II/PCL/PS Printer Kit cannot be used if the optional imagePASS is attached. If you are using the optional imagePASS, see the manual provided with the optional imagePASS.

■ Sending a Fax (for a TCP/IP, NetBIOS, or NetWare network)

- Super G3 FAX Board

System Requirements

The following network and system environments are compatible when printing or sending a fax from a computer:

IMPORTANT

- If you are using the optional imagePASS, see the manual provided with the optional imagePASS for details on the system requirements.
- If you are using Windows 2000, you need to install Service Pack 2 or later.

■ With a TCP/IP Network:

- Compatible OS
  - Microsoft Windows 98
  - Microsoft Windows Me
  - Microsoft Windows 2000 Server
  - Microsoft Windows 2000 Professional
  - Microsoft Windows XP Professional
  - Microsoft Windows XP Home Edition
  - Microsoft Windows Server 2003
  - Microsoft Windows Vista Ultimate
  - Microsoft Windows Vista Business
  - Microsoft Windows Vista Home Premium
  - Microsoft Windows Vista Home Basic
  - Microsoft Windows Vista Enterprise
  - Solaris Version 1.1x (SunOS Version 4.1x) or later
  - Solaris Version 2.5x (SunOS Version 5.5x) or later
  - Mac OS X
- Compatible Computers
  - Windows: IBM PC/compatibles
  - Macintosh: Mac computers (operating OS X)

IMPORTANT

If you are using Mac OS X, compatible operating systems differ depending on the type of printer driver. For details, see the *Mac PS Driver Guide*, the *Mac UFR II Driver Guide,* or the *Network Quick Start Guide*.

■ With a NetBIOS Network:

- Compatible OS
  - Microsoft Windows 98
  - Microsoft Windows Me
  - Microsoft Windows 2000 Server
  - Microsoft Windows 2000 Professional
  - Microsoft Windows XP Professional
  - Microsoft Windows XP Home Edition
  - Microsoft Windows Server 2003
  - Microsoft Windows Vista Ultimate
  - Microsoft Windows Vista Business
  - Microsoft Windows Vista Home Premium
  - Microsoft Windows Vista Home Basic
  - Microsoft Windows Vista Enterprise
  - Mac OS X 10.3 or later
- Compatible Protocol
  - NetBIOS over TCP/IP (NetBT)
- Compatible Computers
  - Windows: IBM PC/compatibles
  - Macintosh: Mac OS X 10.3 or later operating computers/memory

IMPORTANT

When you are using Mac OS X 10.3 or later, you can only print via a NetBIOS network if you are using a PS printer driver provided by Apple Inc. with the Mac OS.

■ With a NetWare Network:

- Compatible Servers
  - Novell NetWare Version 3.2/4.1/4.11/4.2/5/5.1/6/6.5
- Compatible Clients
  - Microsoft Windows 98
  - Microsoft Windows Me
  - Microsoft Windows 2000 Server
  - Microsoft Windows 2000 Professional
  - Microsoft Windows XP Professional
  - Microsoft Windows XP Home Edition
  - Microsoft Windows Server 2003
  - Microsoft Windows Vista Ultimate
  - Microsoft Windows Vista Business
  - Microsoft Windows Vista Home Premium
  - Microsoft Windows Vista Home Basic
  - Microsoft Windows Vista Enterprise
- Compatible Computers
  - IBM PC/compatibles

■ With an AppleTalk Network:

- Compatible AppleTalk
  - EtherTalk Phase 2
- See the *Mac PS Driver Guide*, the *Mac UFR II Driver Guide*, or the *Network Quick Start Guide* for compatible operating systems and computers.

IMPORTANT

The machine does not support Macintosh LocalTalk networks.

■ With a Server-Based Computing Environment:

- Compatible Windows Terminal Server (Services)
  - Microsoft Windows 2000 Server
  - Microsoft Windows Server 2003
- Compatible Software
  - Citrix MetaFrame 1.8
  - Citrix MetaFrame XP

Using E-Mail/I-Fax

Optional Equipment Requirements

- Universal Send Kit

IMPORTANT

For more information on the equipment needed, consult your local authorized Canon dealer.

System Requirements

The following system environments are confirmed for using the e-mail/I-fax functions:

- Compatible mail forwarding server software
  - Sendmail 8.93 or later (UNIX)
  - Microsoft Exchange Server (Windows)
    (Microsoft Exchange Server 5.5 + Service Pack 1 or later)
  - Lotus Domino R4.6 or later (Windows)
- Compatible mail receiving server software
  - Qpopper 2.53 or later (UNIX)
  - Microsoft Exchange Server (Windows)
    (Microsoft Exchange Server 5.5 + Service Pack 1 or later)
  - Lotus Domino R4.6 or later (Windows)

IMPORTANT

If you are using Windows 2000, you need to install Service Pack 2 or later.

NOTE

- The machine sends e-mail or I-fax messages to mail servers using SMTP. The machine can receive incoming messages from a mail server using the POP3 protocol or directly using the machine's own SMTP receiving function. If the latter method is used, it is not necessary for the mail server to support the POP3 protocol.
- The machine can receive I-fax images and error e-mail messages sent when errors occur during communication, but not any other type of e-mail.

Sending Data

Optional Equipment Requirements

- Universal Send Kit

IMPORTANT

For more information on the equipment needed, consult your local authorized Canon dealer.

System Requirements

The following network and system environments are compatible when sending data from the machine to a file server, depending on the type of network used:

IMPORTANT

- If you are using the optional Universal Send Kit with the optional imagePASS, see the manual provided with the optional imagePASS for details on the system requirements.
- If you are using Windows 2000, you need to install Service Pack 2 or later.

■ With a TCP/IPv4 Network (Using FTP):

- Compatible servers
  - Microsoft Windows 2000 Server and Internet Information Services (IIS) 5.0
  - Microsoft Windows XP Professional and IIS 5.1
  - Microsoft Windows Server 2003 and IIS 6.0
  - Microsoft Windows Vista Ultimate and IIS 7.0
  - Microsoft Windows Vista Business and IIS 7.0
  - Microsoft Windows Vista Home Premium and IIS 7.0
  - Microsoft Windows Vista Home Basic and IIS 7.0
  - Microsoft Windows Vista Enterprise and IIS 7.0
  - Solaris Version 2.6 or later
  - Red Hat Linux 7.2 or later
  - Mac OS X
  - FTP server for imageWARE Gateway
- Compatible protocol
  - TCP/IPv4

■ With a TCP/IPv6 Network (Using FTP):

- Compatible servers
  - Solaris Version 9 or later
  - Red Hat Enterprise Linux AS/ES/WS 4.0 or later
  - Mac OS X 10.3 or later
- Compatible protocol
  - TCP/IPv6

■ With a TCP/IPv4 Network (Using WebDAV):

- Compatible servers
  - Microsoft Windows 2000 Server and IIS 5.0
  - Microsoft Windows 2000 Professional and IIS 5.0
  - Microsoft Windows XP Professional and IIS 5.1
  - Microsoft Windows Server 2003 and IIS 6.0
  - Microsoft Windows 2000 Server and Apache 2.0 for Win 32
  - Microsoft Windows XP Professional and Apache 2.0 for Win 32
  - Microsoft Windows Server 2003 and Apache 2.0 for Win 32
  - Solaris Version 2.6 or later, and Apache 2.0 or later
  - Red Hat Enterprise Linux AS/ES/WS 4.0 or later, and Apache 2.0 or later
  - Mac OS X
- Compatible protocol for the WebDAV server
  - TCP/IPv4

■ With a TCP/IPv6 Network (Using WebDAV):

- Compatible servers
  - Microsoft Windows Server 2003 and IIS 6.0
  - Solaris Version 9 or later, and Apache 2.0 or later
- Compatible protocol for the WebDAV server
  - TCP/IPv6

IMPORTANT

If you connect to the internet via a proxy, the proxy server must support IPv6.

■ With a NetBIOS Network:

- Compatible servers
  - Microsoft Windows 98
  - Microsoft Windows Me
  - Microsoft Windows 2000 Server
  - Microsoft Windows 2000 Professional
  - Microsoft Windows XP Professional
  - Microsoft Windows XP Home Edition
  - Microsoft Windows Server 2003
  - Microsoft Windows Vista Ultimate
  - Microsoft Windows Vista Business
  - Microsoft Windows Vista Home Premium
  - Microsoft Windows Vista Home Basic
  - Microsoft Windows Vista Enterprise
- Compatible server software for sending data
  - Samba 2.2.8a or later (UNIX/Linux)
- Compatible protocol
  - NetBIOS over TCP/IP (NetBT)

■ With a NetWare Network:

- Compatible server
  - Novell NetWare Version 3.2/4.11/4.2/5/5.1/6/6.5
- Compatible protocol
  - IPX

Checking Your Network Environment

Refer to the following examples to confirm the network environment that is connected to the machine, and then perform the necessary operations for that environment.

IMPORTANT

If you are using the optional imagePASS, see the manual provided with the optional imagePASS.

Sample Windows Network

In a Windows network environment, the TCP/IP or NetBIOS (NetBIOS over TCP/IP) protocol can be used. Multiple protocols can be used at the same time.
In addition to IPv4 (Internet Protocol Version 4), the machine also supports IPv6 (Internet Protocol Version 6), and has a dual stack configuration that enables it to communicate with both IPv4 networks and IPv6 networks. The functions of IPv4 are always enabled, and you can select whether to use the functions of IPv6.
To use the e-mail/I-fax function, the TCP/IP protocol is required.

After configuring the settings in accordance with Chapter 2, "Settings Common to the Network Protocols," see the following, depending on the protocol:

- Chapter 3, "Using a TCP/IP Network"
- Chapter 5, "Using a NetBIOS Network"

IMPORTANT

- Optional equipment is required to use the e-mail/I-fax functions. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- The machine does not support NetBEUI.
- The IPv6 network of the machine does not support encryption using IPsec (Security Architecture for Internet Protocol).
- If you are using the optional imagePASS, you cannot use the functions of IPv6.

Sample Macintosh Network

In Mac OS 8/9, the AppleTalk (EtherTalk) protocol is used. In Mac OS X, either the AppleTalk (EtherTalk), TCP/IP, or NetBIOS (NetBIOS over TCP/IP) protocol can be used.

To use the e-mail/I-fax function or to send data, the TCP/IP protocol is required.

After configuring the settings in accordance with Chapter 2, "Settings Common to the Network Protocols," see the following, depending on the protocol:

- Chapter 6, "Using an AppleTalk Network (Macintosh)"
- Chapter 3, "Using a TCP/IP Network"
- Chapter 5, "Using a NetBIOS Network"

IMPORTANT

- Optional equipment is required to use the e-mail/I-fax functions, or data sending functions for the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- The protocol you can use differs depending on the version of Mac OS or type of printer driver. For details, see the *Mac PS Driver Guide*, the *Mac UFR II Driver Guide*, or the *Network Quick Start Guide*.

Sample UNIX Network

With UNIX computers, the TCP/IP protocol is used.

After configuring the settings in accordance with Chapter 2, "Settings Common to the Network Protocols," see the following:

- Chapter 3, "Using a TCP/IP Network"

Using a Network with Various Types of Computers

If there are various types of computers on the network, the network operations you are required to perform depend on the type of computers being used.
For example, if you are using Windows XP and Macintosh computers, you will need to specify the settings described in both "Sample Windows Network" and "Sample Macintosh Network".

To use the e-mail/I-fax function, the TCP/IP protocol is required.
To use the data sending function, either the TCP/IP, NetWare, or NetBIOS protocol is required.

After configuring the settings in accordance with Chapter 2, "Settings Common to the Network Protocols," see the following, depending on the protocol:

- Chapter 3, "Using a TCP/IP Network"
- Chapter 4, "Using a NetWare Network (Windows)"
- Chapter 5, "Using a NetBIOS Network"
- Chapter 6, "Using an AppleTalk Network (Macintosh)"

IMPORTANT

Optional equipment is required to use the e-mail/I-fax functions, or data sending functions for the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.

Settings Common to the Network Protocols

2
CHAPTER

This chapter describes setting items common to the network protocols, which are required for using the machine in a network environment. Before specifying the settings of the desired protocol (Chapters 3 to 6), be sure to set the items explained in this chapter. (If you are using the optional imagePASS, see the manual provided with the optional imagePASS.)

Network Environment Setup Procedures 2-2

Connecting the Machine to a Computer or Network 2-3

- Connecting to a Network 2-3
- Connecting to a USB Interface 2-5

Touch Panel Display Transition 2-7

Interface Settings 2-9

Communication Environment Setup 2-11

Network Environment Setup Procedures

Before using the machine in a network environment, it is necessary to perform the following setup procedures.

1 **Network Cable Connection (See "Connecting the Machine to a Computer or Network," on p. 2-3.)**

Connect the machine to the network using the network cables.

2 **Interface Settings (See "Interface Settings," on p. 2-9.)**

Specify the interface settings for communication between the machine and computers on your network. To specify the settings, use:

- The machine's control panel
- The Remote UI (via a web browser)

3 **Communication Environment Setup (See "Communication Environment Setup," on p. 2-11.)**

Set up the environment for communication between the machine and computers on your network.

Connecting the Machine to a Computer or Network

The machine can be connected to a computer or network with a USB cable or 10Base-T/100Base-TX Ethernet cable.

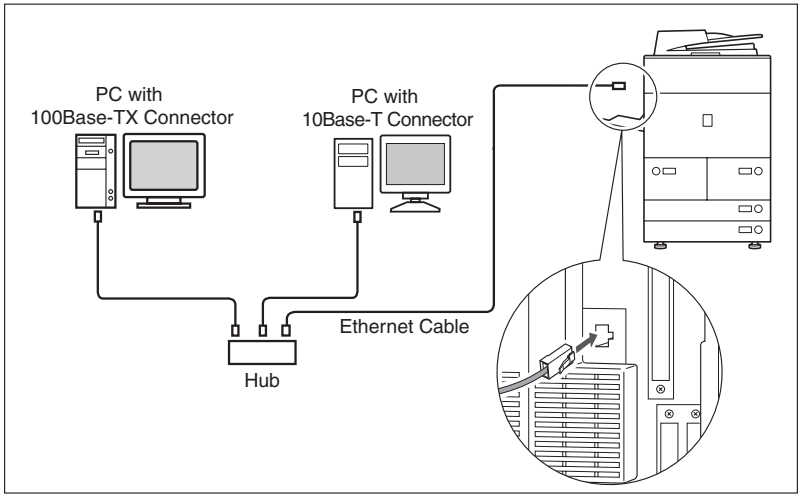
IMPORTANT

- External USB devices (e.g., memory, keyboard, mouse, etc.) are not supported.
- A USB cable or network cable are not included in this package. Please obtain a suitable cable for your computer or network.

Connecting to a Network

The machine supports TCP/IP, AppleTalk, and NetWare, which enables it to be used by Windows, Macintosh, UNIX, and Linux computers. It also has a 10Base-T/100Base-TX connector that can be used on most LANs.

Connect the machine's RJ-45 connector to a hub port using a Category 5 twisted pair LAN cable.



CAUTION

When connecting the interface cable or network cable, be sure to observe the following precautions to avoid electrical shock.

- Turn OFF the machine's main power switch before disconnecting the power cord from the power outlet. (See Chapter 1, "Before You Start Using This Machine," in the *Reference Guide*.)

- Turn OFF the computer and disconnect the power cord from the power outlet.

IMPORTANT

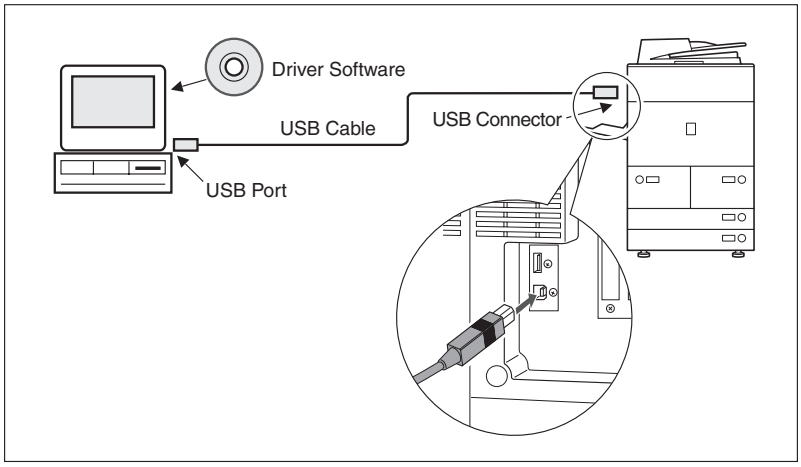
- You cannot use the machine as a repeater, bridge, or gateway.
- If two or more machines are on an AppleTalk network, they should be switched 'ON' 10 seconds or more apart.

NOTE

- The machine can automatically detect the type of Ethernet (10Base-T or 100Base-TX).
- If you are using a mixed 10 Base-T/100 Base-TX environment, devices on the network (hubs, routers, etc.) must support the mixed environment. For more information, consult your local authorized Canon dealer.
- After connecting the network cable, perform the following operations. (For more information, see the relevant descriptions.)
  - Set the date and time, and System Manager settings. (See Chapter 6, "System Manager Settings," in the *Reference Guide*.)
  - Set the network settings.
  - Install a driver if necessary. (See the *PCL Driver Guide*, the *PS Driver Guide*, the *UFR II Driver Guide*, the *Fax Driver Guide*, the *Mac PS Driver Guide*, the *Mac UFR II Driver Guide*, or the *Network Quick Start Guide*.)

Connecting to a USB Interface

You can connect the machine to a computer with a USB port via a USB cable. The machine is USB 2.0 Hi-Speed compatible. The drivers, and utility that matches the operating system on your computer will be installed. For more information on installing the driver through a USB connection, see Chapter 2, "Getting Started," in the *PCL Driver Guide*, the *PS Driver Guide*, the *UFR II Driver Guide*, or the *Fax Driver Guide*.



CAUTION

If you connect or disconnect the USB cable while the machine's main power switch is ON, do not touch the metal parts around the connector, as this may result in electrical shock.

IMPORTANT

- Do not connect or disconnect the USB cable in the following situations, as it may cause your computer or the machine to operate poorly:
  - When installing the driver
  - When the computer is booting up
  - When printing
- If you disconnect the USB cable with the computer or machine's main power switch ON, always wait at least five seconds before reconnecting the cable. Immediately reconnecting the cable may cause your computer or machine to operate poorly.
- When the machine is connected to a personal computer via the USB cable, you will not be able to use some of the utilities. (See the *Network Quick Start Guide*.)
- If you connect the machine to a personal computer via a USB cable, confirm that [Use USB Device] (in the System Settings screen) is set to 'On'. (See the *Reference Guide*.)

NOTE

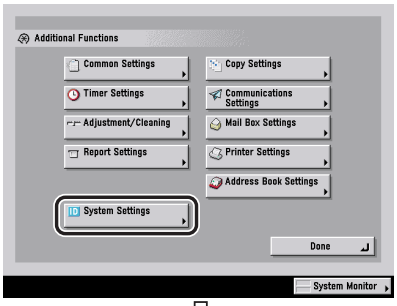
- If you connect the machine to a Macintosh via a USB cable, the Macintosh, if shut down, may start up when the machine starts up or returns from the Sleep mode. If this happens, disconnect the USB cable (the use of a USB hub between the machine and the Macintosh may solve this problem).
- If the machine is connected to a computer with a USB cable, you can print a document from your computer using the printer driver, or send a fax from your computer using the fax driver.
- You cannot specify a computer connected to the machine through a USB connection as a destination for Send jobs or forwarded jobs. Also, with that computer, you cannot use the Remote UI and the Network Scan function.
- The appropriate USB interface differs depending on the operating system of the connected computer as follows. For more information, consult your local authorized Canon dealer.
  - Windows 98/Me: USB Full-Speed (USB 1.1 equivalent)
  - Windows 2000/XP/Server 2003/Vista: USB 2.0 Hi-Speed/USB Full-Speed (USB 1.1 equivalent)
  - Mac OS 8/9/X (10.3.2 or earlier): USB Full-Speed (USB 1.1 equivalent)
  - Mac OS X (10.3.3 or later): USB 2.0 Hi-Speed/USB Full-Speed (USB 1.1 equivalent)

Touch Panel Display Transition

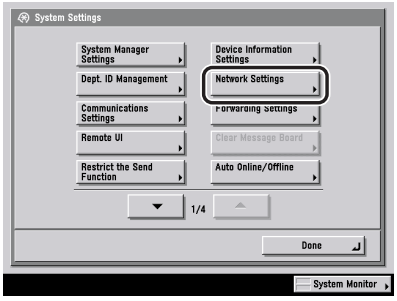
The following is a flow diagram of the touch panel display used in this manual.

Specify the network settings from the Additional Functions screen displayed by pressing (Additional Functions). See this diagram to specify the various network settings, in accordance with the procedures in Chapters 3 to 6.

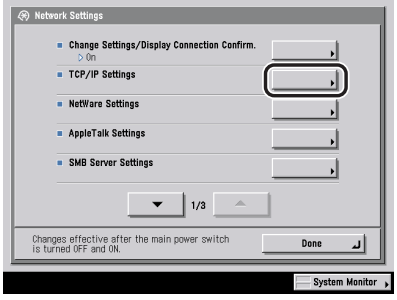
Additional Functions screen



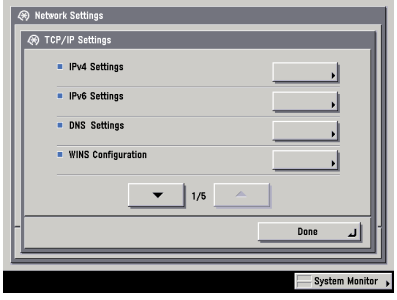
System Settings screen



Network Settings screen



TCP/IP Settings screen



IMPORTANT

Settings specified from the control panel become effective after the machine is restarted, after the procedure. Turn OFF the machine, wait at least 10 seconds, and then turn it ON.

NOTE

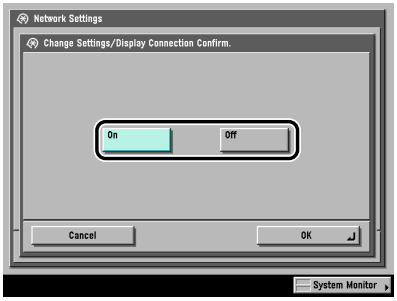
If the System Manager ID and password are set, enter them. (See Chapter 6, "System Manager Settings," in the *Reference Guide*.)

Interface Settings

This section describes how to specify the interface settings from the control panel. If you are configuring the settings for the first time, use the control panel of the machine.

After configuring the settings, you can change them using software other than the control panel of the machine. For details, see "Network Setting Items," on p. 8-2.

1 On the Network Settings screen, press [Change Settings/Display Connection Confirm.] → specify the following.



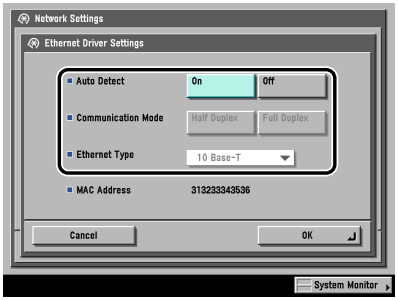
[On]: If errors related to network connections occur, an error message is displayed on the touch panel display of the machine. If you want to use the machine in a network environment, select [On].

[Off]: Messages related to network connections are no longer displayed. If you want to use the machine without connecting to a network, select [Off].

IMPORTANT

Even if you switch the [Change Settings/Display Connection Confirm.] setting from 'On' to 'Off', if the network connections are correctly set they will not be disconnected. The settings in the Network Settings screen will not be changed.

2 On the Network Settings screen, press [Ethernet Driver Settings] → specify the following.



- **If you want the machine to automatically determine the communication mode and Ethernet type:**

  ❑ <Auto Detect>: [On]

  If you reconnect the network cable (for example, reconnect the cable to a different Ethernet hub) with the machine's main power switch ON, the Auto Detect function will not work even if you set <Auto Detect> to [On]. Turn OFF the machine, wait at least 10 seconds, and then turn it ON. (Connect the cable with the machine's main power switch OFF.)

IMPORTANT

The machine automatically determines the Ethernet type. Press [On] unless you want to specify a particular Ethernet setting.

- **If you want to manually set the communication mode and Ethernet type for specifying a particular Ethernet type setting:**

  ❑ <Auto Detect>: [Off].

  Select the appropriate items for <Communication Mode> and <Ethernet Type>, according to the network environment you are using.

Communication Environment Setup

This section describes how to set up the environment for communication between the machine and computers on your network. If you are configuring the settings for the first time, use the control panel of the machine.

After configuring the settings, you can change them using software other than the control panel of the machine. For details, see "Network Setting Items," on p. 8-2.

1 On the Network Settings screen, press [SNMP Settings] → specify the settings for SNMP v. 1.

[On] for <Use SNMP v. 1>: Follow the procedure below to specify the MIB access permissions and community names.

IMPORTANT

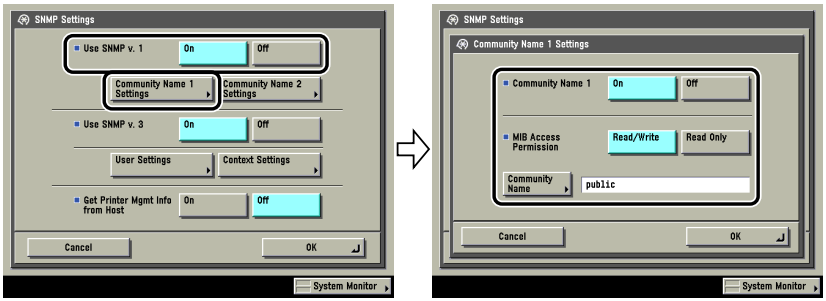
- The machine supports the SNMP v. 1 and SNMP v. 3 management functions. You can use them simultaneously. The [Read Only]/[Read/Write] functions of SNMP v. 1 and the security functions of SNMP v. 3, such as an encrypted communication path, enable you to manage devices more securely.
  The available combinations of SNMP v. 1 and SNMP v. 3 functions you can use are shown below:

SNMP v. 1		SNMP v. 3	Description
Use SNMP v. 1	MIB Access Permission	Use SNMP v. 3	
On	Read/Write	On/Off	You can set or browse each item of the machine with a utility that uses SNMP v. 1 to obtain information. As the write access with SNMP v. 1 is enabled, the security functions of SNMP v. 3 are not available, regardless of the settings for <Use SNMP v. 3>.
On	Read Only	On	You can only browse each item of the machine with a utility that uses SNMP v. 1 to obtain information. Only users who have been assigned access rights can set each item of the machine with a utility that uses SNMP v. 3.
On	Read Only	Off	You can only browse each item of the machine with a utility that uses SNMP v. 1 to obtain information.
Off	-	On	Only users who have been assigned access rights can set or browse each item of the machine with a utility that uses SNMP v. 3.
Off	-	Off	You cannot set or browse each item of the machine with a utility.

- If you want to use a Canon printer driver or utility, press [On] for both <Use SNMP v. 1> and [Enable Dedicated Port] (for IPv4 only).
- You can restrict the IP addresses of computers on which items can be set or browsed. If you restrict the IP addresses, it is not possible to set or browse detailed information concerning the machine on computers other than those whose IP addresses are allowed, even if <Use SNMP v. 1>, <Use SNMP v. 3>, and [Enable Dedicated Port] (for IPv4 only) are 'On'. For details, see "TCP/IP Settings (IPv4)," on p. 3-3 or "TCP/IP Settings (IPv6)," on p. 3-18.

● If you want to specify a Community Name 1

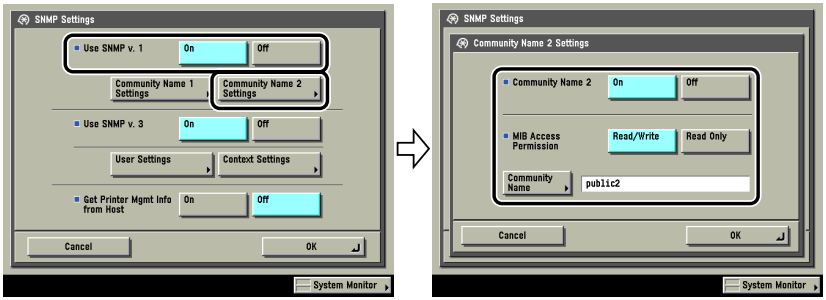
❑ Press [Community Name 1 Settings] → [On] → specify the settings for <MIB Access Permission> and the community name in [Community Name].



You can also change the community name in [Community Name] to a name other than 'public'.

● If you want to specify a Community Name 2

❑ Press [Community Name 2 Settings] → [On] → specify the settings for <MIB Access Permission> and the community name in [Community Name].



You can also change the community name in [Community Name] to a name other than 'public2'.

2 Specify the settings for SNMP v. 3.

[On] for <Use SNMP v. 3>: Specify the user and context according to the following procedures.

NOTE

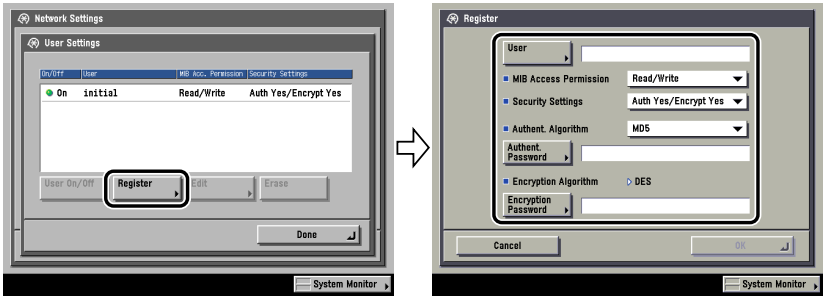
An SNMP v. 3 user with the following settings is registered by default. Delete or change these settings as necessary.

- User: initial
- MIB Access Permission: Read/Write
- Security Settings: Auth Yes/Encrypt Yes
- Authent. Algorithm: MD5
- Authent. Password: initial
- Encryption Password: initial

● **If you want to add an SNMP v. 3 user:**

❑ Press [User Settings] → [Register] → specify the user name, MIB permissions, and security settings.

If you select [Auth Yes/Encrypt Yes] from the Security Settings drop-down list, select the authentication algorithm → enter the passwords for authentication and encryption. If you select [Auth. Yes/Encrypt. No] from the Security Settings drop-down list, select the authentication algorithm → enter the password for authentication.



● **If you want to confirm or change the SNMP v. 3 user settings:**

❑ Press [User Settings] to select the user whose settings you want to confirm or change → press [Details/Edit].

Confirm the displayed information → change the settings if necessary.

● **If you want to erase an SNMP v. 3 user:**

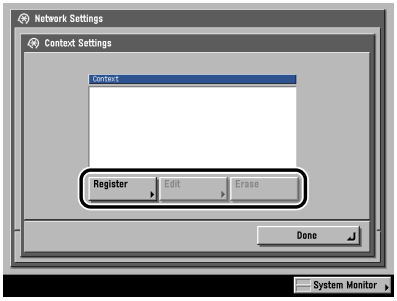
❑ Press [User Settings] to select the user whose settings you want to erase → press [Erase].

● **If you want to change the status of an SNMP v. 3 user:**

❑ Press [User Settings] → select the user whose status you want to change → press [User On/Off].

● **If you want to edit the context:**

❑ Press [Context Settings] → edit the context.

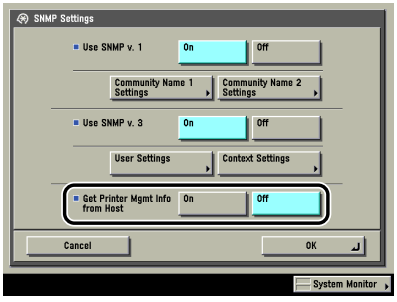


If you want to add a context, press [Register] to add a new context. If you want to change a context, select the context you want to change → press [Edit] to change the context. If you want to erase a context, select the context you want to erase → press [Erase].

NOTE

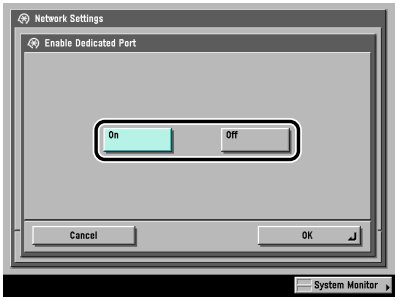
A context named 'NULL' is registered by default. The 'NULL' context cannot be deleted, and is not displayed on the Context Settings screen.

3 Set monitoring for the printer management information.



[On] for <Get Printer Mgmt Info from Host>: If you are using Windows Vista and set [Standard TCP/IP port] for the printer driver port, the SNMP port monitoring function will be enabled automatically to obtain printer management information such as information on print applications and printer ports.

4 On the Network Settings screen, press [Enable Dedicated Port] → specify the following.

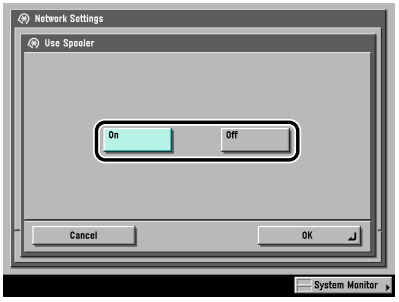


[On]: You can set or browse detailed information on the machine with a Canon printer driver or utility (UFR II/PCL/PS printer drivers, NetSpot Device Installer, etc.).

IMPORTANT

- If you want to use a Canon printer driver or utility, press [On] for both <Use SNMP v. 1> and [Enable Dedicated Port].
- You can restrict the IP addresses of computers on which items can be set or browsed. If you restrict the IP addresses, it is not possible to set or browse detailed information concerning the machine on computers other than those whose IP addresses are allowed, even if <Use SNMP v. 1>, <Use SNMP v. 3>, and [Enable Dedicated Port] are 'On'. For details, see "TCP/IP Settings (IPv4)," on p. 3-3 or "TCP/IP Settings (IPv6)," on p. 3-18.
- IPv6 is not supported.

5 On the Network Settings screen, press [Use Spooler] → specify the following.



[On]: You can spool print jobs transmitted to this machine on the machine's hard disk. Set the spooler if you are using the optional UFR II/PCL/PS Printer Kit or the optional Super G3 FAX Board.

IMPORTANT

If the optional UFR II/PCL/PS Printer Kit is activated, take note of the following:

- If the print job is sent from a Macintosh computer to a PS printer, you cannot specify whether to spool under this option. Spooling is determined by the name of the printer selected in the Macintosh screen. For more information, see "Setting Up a Computer for Printing," on p. 6-4.
- If you print a file in PDF or PS format by specifying its URL on the Remote UI, the print job will always be spooled, regardless of the settings made under this option.

NOTE

When you spool a print job on the machine's hard disk, the time required to release a computer outputting a print job is shortened.

3 CHAPTER

Using a TCP/IP Network

This chapter describes the settings and procedures necessary to connect and use the machine with a TCP/IP network.

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TCP/IP Network Setup Procedures

To use a TCP/IP network, it is necessary to perform the following procedures.

1 Protocol Settings (See "Protocol Settings," on p. 3-3.)

Specify the protocol settings. To specify the settings, use:

- The machine's control panel
- The Remote UI (via a web browser)
- Canon utilities (NetSpot Device Installer, etc.)

2 Computer Settings for Printing/Sending a Fax (See "Setting Up a Computer for Printing/Sending a Fax," on p. 3-43.)

Specify the settings for each computer you use for printing or sending a fax. (Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

3 Computer Settings for a File Server (See "Setting Up a Computer as a File Server," on p. 3-57.)

Specify the settings of the computer receiving data sent from the machine. (Optional equipment is required to send data from the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

IMPORTANT

- If you are using the optional imagePASS, for step 2, see the manual provided with the optional imagePASS, not this guide.
- It is recommended that steps 1 and 3 above be performed by the network administrator.
- The machine or optional printing equipment does not come with printer driver software that can be used on a UNIX platform. (Use LPD to set up a printer in UNIX.)
- As the fax option does not come with fax driver software for the UNIX platform, it is not possible to send a fax from a UNIX platform.

Protocol Settings

This section describes how to specify the protocol settings for the machine using the control panel. If you are configuring the settings for the first time, use the control panel of the machine.

After configuring the settings, you can change the content by using software other than the control panel of the machine. For details, see "Network Setting Items," on p. 8-2.

IMPORTANT

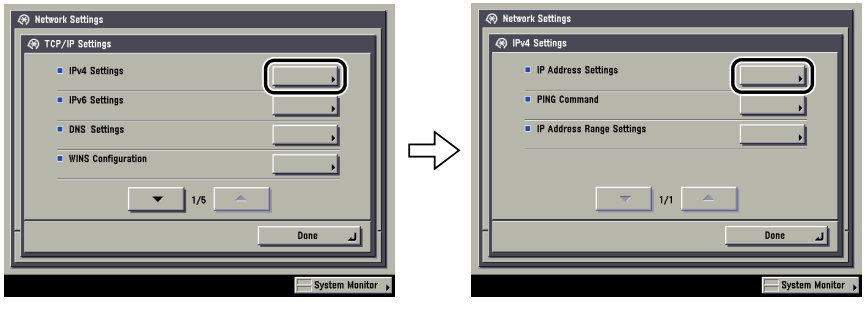
- When using functions to access external servers on the internet, you may not be able to access them due to the settings of firewalls, etc. In this case, consult your network administrator.
- If you are using the optional imagePASS, see the manual provided with the optional imagePASS for more information on the settings (other than for e-mail/I-fax settings).

TCP/IP Settings (IPv4)

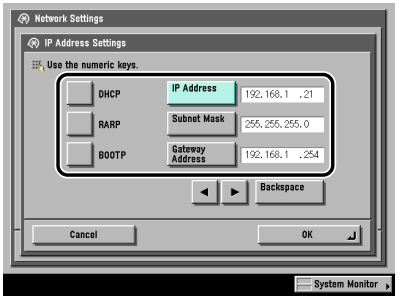
The following are the procedures for specifying the TCP/IPv4 settings from the control panel. After configuring the TCP/IPv4 settings, confirm that the network connections are properly set. (See "Confirming TCP/IP Settings (IPv4)," on p. 3-17.)

If you want to use IPv6 communications, follow the procedure in "TCP/IP Settings (IPv6)," on p. 3-18 to specify the required settings, and the procedure in "Confirming TCP/IP Settings (IPv6)," on p. 3-26 to confirm the settings.

1 On the TCP/IP Settings screen, press [IPv4 Settings] → [IP Address Settings].



2 In [IP Address Settings], specify the following.



● Using a fixed IP address:

❑ [DHCP], [RARP], and [BOOTP]: [Off]

Enter the appropriate values in [IP Address], [Subnet Mask], and [Gateway Address].

NOTE

It takes about two minutes to check whether the DHCP, BOOTP, or RARP settings can be used. If you do not plan to use one of these settings, it is recommended that you turn them off.

● Obtaining automatically an IP address:

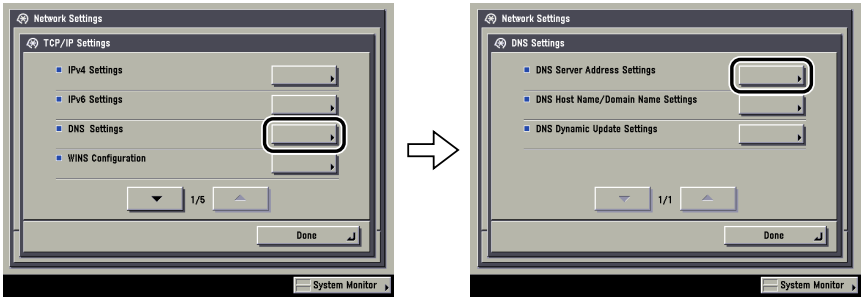
❑ [DHCP], [RARP], or [BOOTP]: [On]

If this information cannot be obtained via DHCP, RARP, or BOOTP after you restart the machine, enter the IP address, subnet mask, and gateway address to use the settings entered in this step.

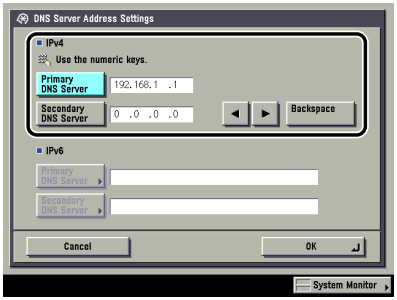
NOTE

- If the machine is restarted after DHCP, BOOTP, or RARP settings are specified, the TCP/IP Settings screen displays the IP address setting values obtained from the DHCP, BOOTP, or RARP server. (If the IP address, host name, and domain name have been previously set, these will be overwritten by the setting values obtained from DHCP, BOOTP, or RARP.)
- If you use DHCP without the DNS dynamic update function, it is recommended that an identical IP address be assigned to the machine at all times. (If the IP address is not identical, the host name for the machine will not correspond to the IP address.)

3 On the TCP/IP Settings screen, press [DNS Settings] → [DNS Server Address Settings].



4 In <IPv4>, specify the following.



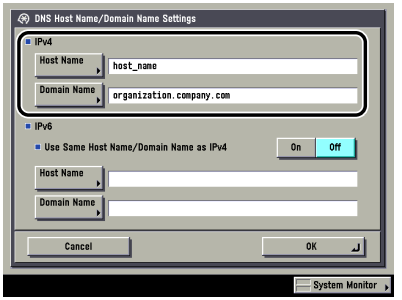
If you want to use dynamic DNS updating, enter the IPv4 address of the DNS server in [Primary DNS Server].

If you do not want to set up a secondary DNS server, enter <0.0.0.0>.

IMPORTANT

If you set [BOOTP] or [DHCP] to 'On' in step 2, the IP address of a DNS server you set manually will be overwritten.

5 On the DNS Settings screen, press [DNS Host Name/Domain Name Settings] → in <IPv4>, specify the following.



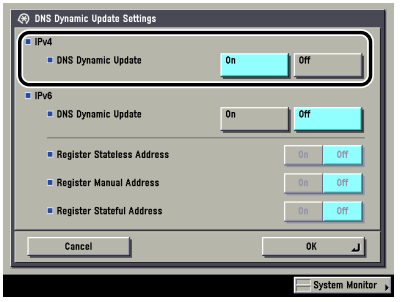
Enter the name of the machine as [Host Name], and the network domain name of the machine as [Domain Name].

If you want to use dynamic DNS updating, it is necessary to set a host name and domain name.

IMPORTANT

If you set [BOOTP] or [DHCP] to 'On' in step 2, the host name and domain name you set manually will be overwritten.

6 On the DNS Settings screen, press [DNS Dynamic Update Settings] → in <IPv4>, specify the following.

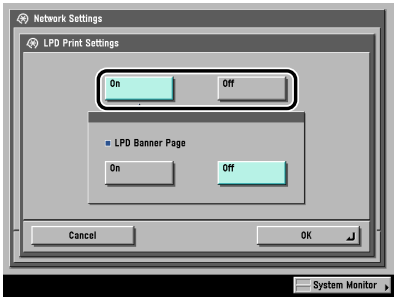


[On] for <DNS Dynamic Update>: If your environment includes a dynamic DNS server, you can automatically register the IPv4 address, host name, and domain name set for the machine in the DNS server using dynamic DNS updating.

NOTE

- If you have a DHCP server running Windows 2000 Server that uses the DHCP service and want to register the machine's DNS record, configure the following settings in the DHCP server:
  - In the DHCP server, right-click the [Scope] icon → click [Properties]. In the [DNS] sheet of the displayed dialog box, select [Automatically update DHCP client information in DNS] → [Update DNS only if DHCP client requests].
- If you have a DHCP server running Windows 2003 Server that uses the DHCP service and want to register the machine's DNS record, configure the following settings in the DHCP server:
  - In the DHCP server, right-click the [Scope] icon → click [Properties]. In the [DNS] sheet of the displayed dialog box, select [Enable DNS dynamic updates according to the settings below] → [Dynamically update DNS A and PTR (Pointer Record) records only if requested by the DHCP clients].
  - In the Active Directory environment, right-click the icon of the DHCP server you are using → select [Properties]. In the [Advanced] sheet of the displayed dialog box, click [Credentials]. In the [DNS dynamic update credentials] dialog box, enter the user name, domain, and password for the Active Directory.

7 On the TCP/IP Settings screen, press [LPD Print Settings] → specify the following.



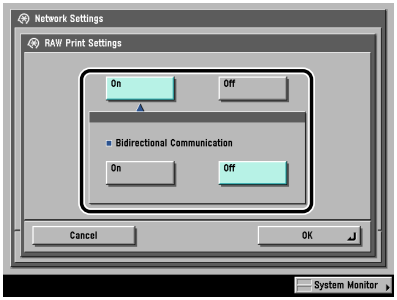
Specify the LPD print settings if you are using the optional UFR II/PCL/PS Printer Kit or the optional Super G3 FAX Board.

[On]: You can use LPD as the print application.

NOTE

- You can only output a banner page if you are using the optional UFR II/PCL/PS Printer Kit.
- Output of a banner page is set on a print-job basis. Even if [On] is selected for <LPD Banner Page>, a banner page cannot be output for a print job unless it is set.

8 On the TCP/IP Settings screen, press [RAW Print Settings] → specify the following.

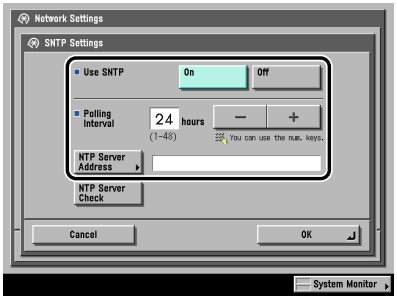


Specify the Raw print settings if you are using the optional UFR II/PCL/PS Printer Kit or the optional Super G3 FAX Board.

[On]: You can use Raw as the print application.

If you want to establish bidirectional communication using Port 9100, press [On] for <Bidirectional Communication>.

9 On the TCP/IP Settings screen, press [SNTP Settings] → specify the following.



[On] for <Use SNTP>: You can perform time synchronization using SNTP.

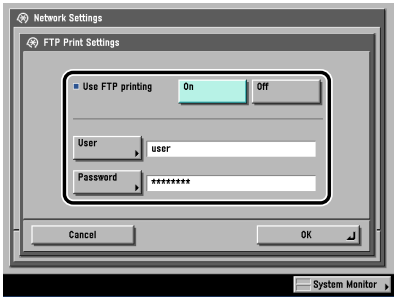
Select the interval for performing time synchronization in <Polling Interval>.

In [NTP Server Address], enter the NTP server IPv4 address or host name.

IMPORTANT

In order to perform time synchronization through SNTP, it is necessary to set the time zone of the region in which you are using the machine in advance. For instructions on how to set the time zone, see Chapter 6, "System Manager Settings," in the *Reference Guide*.

10 On the TCP/IP Settings screen, press [FTP Print Settings] → specify the following.



Specify the FTP print settings if you are using the optional UFR II/PCL/PS Printer Kit.

[On] for <Use FTP printing>: You can use FTP as the print application.

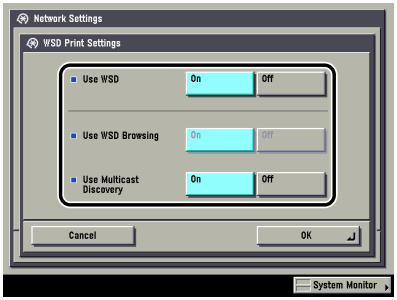
In [User], enter the login user name for access to the FTP server.

In [Password], enter the login password for access to the FTP server.

IMPORTANT

- If you do not specify [User] and [Password], all user names and passwords will be valid.
- The password will appear in the job list as a user name if you enter "anonymous" as a login user name for access to an FTP server without specifying [User] and [Password], or if you enter "anonymous" in [User]. (To display the job list, press [System Monitor] → [Print] → [Log] on the touch panel display.)
- The port number is 21 and cannot be changed.

11 On the TCP/IP Settings screen, press [WSD Print Settings] → specify the following.



Specify the WSD print settings if you are using Windows Vista and the optional UFR II/PCL/PS Printer Kit or the optional Super G3 FAX Board.

[On] for <Use WSD>: You can use WSD (Web Services for Devices) as the print application.

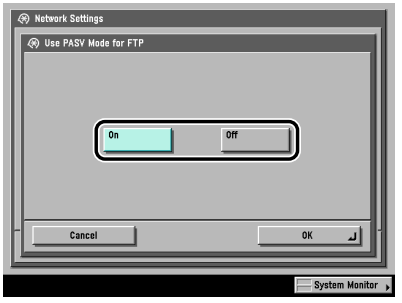
<Use WSD Browsing> is automatically set to 'On' if you set <Use WSD> to 'On', and enables device information to be obtained using WSD.

If you want to respond to multicast discovery requests, set <Use Multicast Discovery> to 'On'.

IMPORTANT

IPv6 is not supported.

12 On the TCP/IP Settings screen, press [Use PASV Mode for FTP] → specify the following.

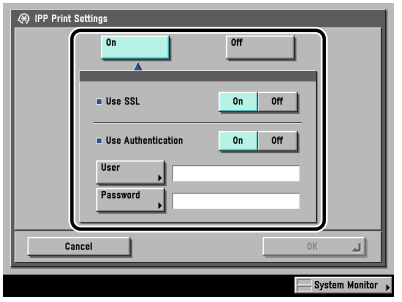


Set the PASV mode for FTP if you are using the optional Universal Send Kit.

IMPORTANT

Whether you use the PASV mode for FTP depends on the network environment you are using and the settings of the file server you are sending to. Before specifying the PASV mode for FTP, consult your network administrator.

13 On the TCP/IP Settings screen, press [IPP Print Settings] → specify the following.



Specify the IPP print settings if you are using the optional UFR II/PCL/PS Printer Kit or the optional Super G3 FAX Board.

[On]: You can use IPP as the print application. Pressing [On] for [IPP Print Settings] automatically sets [Use HTTP] to 'On'.

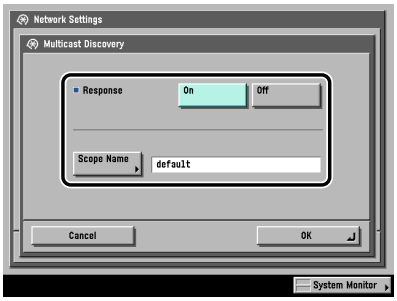
To use SSL to encrypt the IPP data, press [On] for <Use SSL>.

If you are using IPP authentication, press [On] for <Use Authentication> → enter the user name to use for IPP authentication in [User], and the password to use for IPP authentication in [Password].

IMPORTANT

In order to select [On] for <Use SSL> to allow SSL communication, a key pair is necessary. You can use the preinstalled default key pair, or generate an original key pair with the machine, to use as the default key pair. For information on the default key pair, and instructions on how to generate an original key pair, see "Generating a Key Pair and Server Certificate," on p. 3-27.

14 On the TCP/IP Settings screen, press [Multicast Discovery] → specify the following.



[On] for <Response>: You can use device information from other devices, such as an Address Book or Department ID Management settings, or respond to a multicast discovery from utilities.

Optionally, press [Scope Name] and enter the scope name for a multicast discovery.

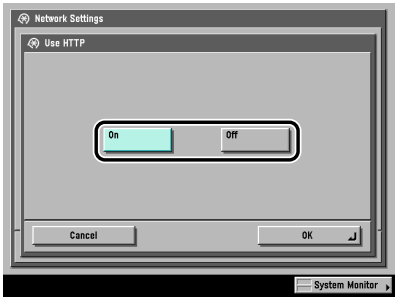
IMPORTANT

IPv6 is not supported.

NOTE

For instructions on how to deliver and share device information, such as the Address Book and Department ID Management settings with multiple devices, see Chapter 6, "System Manager Settings," in the *Reference Guide*.

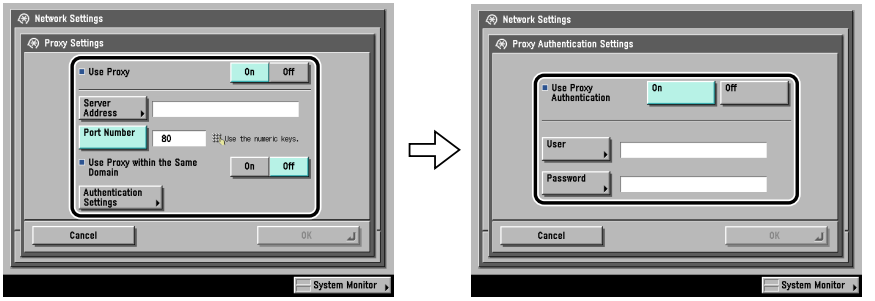
15 On the TCP/IP Settings screen, press [Use HTTP] → specify the following.



[On]: You can use the Remote UI or IPP.

Pressing [Off] for [Use HTTP] automatically sets [Remote UI] (in the System Settings screen) and [IPP Print Settings] to 'Off'.

16 On the TCP/IP Settings screen, press [Proxy Settings] → specify the following.



In the following cases, specify the proxy settings, according to the network environment you are using:

- If you are using the optional UFR II/PCL/PS Printer Kit
- If you are using the optional Web Access Software (The Web Access Software is optional software for viewing web pages on the touch panel display of the machine. For details, see the *Web Access Software User's Guide*.)
- If you connect the WebDAV client to the Internet via a proxy, when using a WebDAV server

In [Server Address], enter a proxy server IP address or FQDN (for example, starfish.company.com).

In [Port Number], enter the port number of a proxy server using ⓪ - ⑨ (numeric keys).

If you want to use a proxy in the same domain, press [On] for <Use Proxy within the Same Domain>.

If you want to use proxy authentication, press [Authentication Settings] → [On] for <Use Proxy Authentication> → enter the user name to use for proxy authentication in [User], and the password to use for proxy authentication in [Password].

IMPORTANT

If the optional UFR II/PCL/PS Printer Kit is activated, you can print a file in the PDF or PS format by specifying its URL using the Remote UI. To print a file by specifying its URL using the Remote UI, you need to specify the proxy settings suitable for your environment. (Set in this step.)

17 On the IPv4 Settings screen, press [IP Address Range Settings] → specify the following.

You need to set <RX/Print Range> if you are using the optional UFR II/PCL/PS Printer Kit, the optional Super G3 FAX Board, or the optional Universal Send Kit.

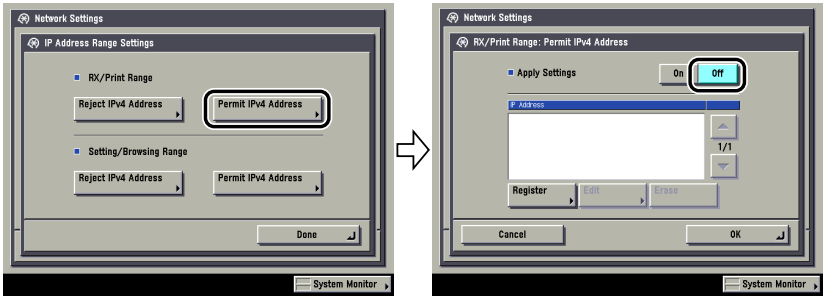
IMPORTANT

You can maintain security by setting the range of IPv4 addresses for computers that can obtain access to the machine.

- Once you set the range of IPv4 addresses of computers on which items for the machine can be set or browsed, it is not possible to use the Remote UI on computers whose IPv4 addresses are not allowed; a utility on the computers cannot be used to set or browse detailed information concerning the machine.
- Once you set the range of IPv4 addresses of computers from which data (print/fax/I-fax job) can be sent to the machine, the machine rejects data sent from computers whose IPv4 addresses are not allowed. (Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

● **If you do not want to restrict the IPv4 addresses of computers from which data (print/fax/I-fax job) can be sent to the machine:**

❑ <Apply Settings> of [Permit IPv4 Address] for <RX/Print Range>: [Off]

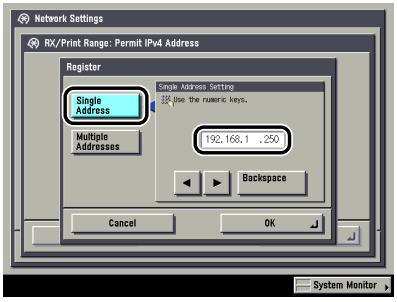


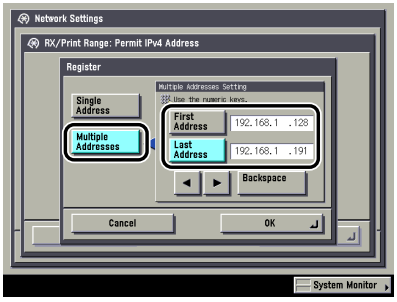
❑ <Apply Settings> of [Reject IPv4 Address] for <RX/Print Range>: [Off]

● **If you want to restrict the IPv4 addresses of computers from which data (print/fax/I-fax job) can be sent to the machine:**

❑ <Apply Settings> of [Permit IPv4 Address] for <RX/Print Range>: [On]

Press [Register] → store only one IPv4 address or a range of IPv4 addresses that are to be permitted.





❑ <Apply Settings> of [Reject IPv4 Address] for <RX/Print Range>: [On]

Press [Register] → store only one IPv4 address or a range of IPv4 addresses that are to be rejected.

● **If you do not want to restrict the IPv4 addresses of computers on which the machine setting items can be set or browsed (using the Remote UI or utility):**

❑ <Apply Settings> of [Permit IPv4 Address] for <Setting/Browsing Range>: [Off]

❑ <Apply Settings> of [Reject IPv4 Address] for <Setting/Browsing Range>: [Off]:

● **If you want to restrict the IPv4 addresses of computers on which the machine setting items can be set or browsed (using the Remote UI or utility):**

❑ <Apply Settings> of [Permit IPv4 Address] for <Setting/Browsing Range>: [On]

Press [Register]→ store only one IPv4 address or a range of IPv4 addresses that are to be permitted.

❑ <Apply Settings> of [Reject IPv4 Address] for <Setting/Browsing Range>: [On]

Press [Register] → store only one IPv4 address or a range of IPv4 addresses that are to be rejected.

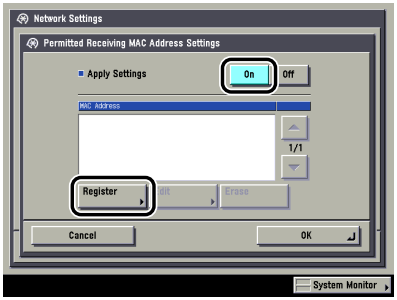
IMPORTANT

- You can register up to eight IPv4 addresses or IPv4 address ranges.
- The IPv4 address '0.0.0.0' cannot be specified.
- The value of [First Address] for [Multiple Addresses] should be smaller than or equal to that of [Last Address].
- If <Apply Settings> is set to 'Off' for both [Permit IPv4 Address] and [Reject IPv4 Address], all IPv4 addresses are permitted.
- If <Apply Settings> is set to 'Off' for [Permit IPv4 Address] and <Apply Settings> is set to 'On' for [Reject IPv4 Address], IPv4 addresses that are beyond the specified range of [Reject IPv4 Address] are permitted.
- If <Apply Settings> is set to 'On' for [Permit IPv4 Address] and <Apply Settings> is set to 'Off' for [Reject IPv4 Address], IPv4 addresses that are beyond the specified range of [Permit IPv4 Address] are not permitted.
- If <Apply Settings> for both [Permit IPv4 Address] and [Reject IPv4 Address] is set to 'On', IPv4 addresses that are beyond the ranges of both [Permit IPv4 Address] and [Reject IPv4 Address] are not permitted.
- If <Apply Settings> for both [Permit IPv4 Address] and [Reject IPv4 Address] is set to 'On', IPv4 addresses that are within the ranges of both [Permit IPv4 Address] and [Reject IPv4 Address] are not permitted.
- If the usage of a protocol or print application is not permitted on your device, it cannot be used even after its IPv4 address is permitted on the machine; on your device, configure the settings to permit the protocol or print application.

NOTE

This machine logs attempts to gain access from IPv4 addresses that it has been set to reject. For instructions on how to refer to the access log, see "Viewing the Network Access Log," on p. 8-24.

18 On the TCP/IP Settings screen, press [Permitted Receiving MAC Address Settings] → specify the following.

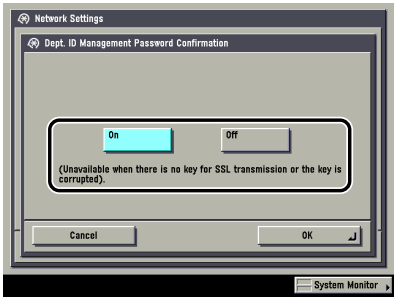


[On] for <Apply Settings>: You can enable a MAC address filter. Press [Register] → specify the MAC addresses to allow access to.

IMPORTANT

- Up to 100 MAC addresses can be specified.
- If you select [On] for <Apply Settings>, you will become unable to access from MAC addresses which have not been specified. Check the MAC addresses carefully before specifying them. If the corresponding MAC address does not exist, you will become unable to access the network.

19 On the TCP/IP Settings screen, press [Dept. ID Management Password Confirmation] → specify the following.



Select [On] or [Off] if you are using the optional UFR II/PCL/PS Printer Kit or the optional Super G3 FAX Board.

[On]: You can confirm the Department ID and password when printing using a driver that supports Windows Vista.

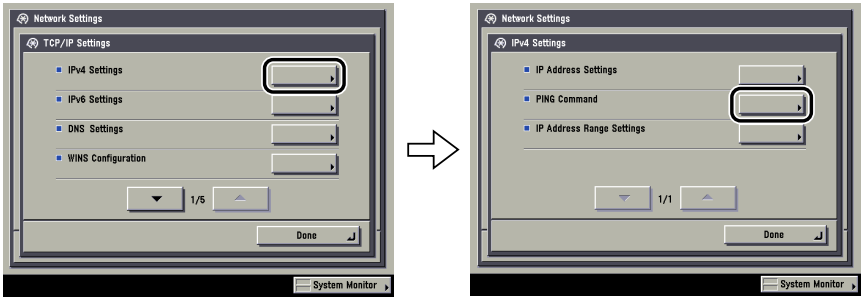
IMPORTANT

- A key pair to use for encrypted SSL communication is required to confirm Department IDs and passwords. Even if you set [Dept. ID Management Password Confirmation] to 'On', Department IDs and passwords cannot be confirmed if the key pair is corrupted or invalid. In this case, erase the key pair and follow the procedure in "Generating a Key Pair and Server Certificate," on p. 3-27 or "Registering a Key Pair File and Server Certificate File Installed from a Computer," on p. 3-30 to register a new key pair.
- If there is no key pair, you cannot set <Dept. ID Management Password Confirmation> to 'On'. You can use the preinstalled default key pair, or generate an original key pair with the machine, to use as the default key pair. For information on the default key pair, and instructions on how to generate an original key pair, see "Generating a Key Pair and Server Certificate," on p. 3-27.

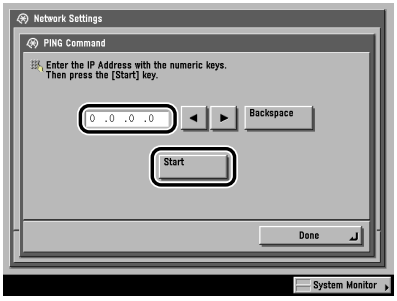
Confirming TCP/IP Settings (IPv4)

The following is the procedure for confirming that the network connections are properly set.

1 On the TCP/IP Settings screen, press [IPv4 Settings] → [PING Command].



2 In [PING Command], check the following.



Pressing [Start] after entering the desired IP address existing on the network displays the result of the PING command on the touch panel display.

If this result is inappropriate, check the settings described in "Interface Settings," on p. 2-9, and "TCP/IP Settings (IPv4)," on p. 3-3.

IMPORTANT

- If you set the startup time of the machine's network function by following the procedure in "Startup Time Settings," on p. 3-42, execute the PING command only after the time set as the startup time passes.
- If you connect the machine to a switching hub, the machine may not be able to connect to a network even though your network settings are appropriate. This problem may be resolved by delaying the startup of network communications for the machine. See "Startup Time Settings," on p. 3-42 for information on how to set up the startup time.

3 On the TCP/IP Settings screen, press [SNTP Settings] → check the following.

After pressing [NTP Server Check], if <OK> is displayed, time synchronization is working correctly via SNTP.

If <Error> is displayed, check the settings for [NTP Server Address] set in step 9 of "TCP/IP Settings (IPv4)," on p. 3-3.

Even if you perform [NTP Server Check], time settings are not updated. Check that communications are possible between the machine and the NTP server.

TCP/IP Settings (IPv6)

The following explains the procedure for specifying TCP/IPv6 settings with the control panel. After specifying the TCP/IPv6 settings, perform the procedure in "Confirming TCP/IP Settings (IPv6)," on p. 3-26 to confirm that the network settings are correct.
The machine can use up to seven of the following IPv6 addresses. With IPv6 communication, multiple IPv6 addresses can be used at the same time.

IMPORTANT

You cannot use the functions of IPv6 without using the functions of IPv4.

■ Link local address (1)
An address that is only valid within the same link. A link local address is automatically set using a specific prefix (fe80::) and an interface identifier generated from the MAC address of the machine. When the machine is using the functions of IPv6, one link local address is always registered.

■ Manual address (0 or 1)
A fixed address that is set from the control panel.

■ Stateless address (0 to 6)

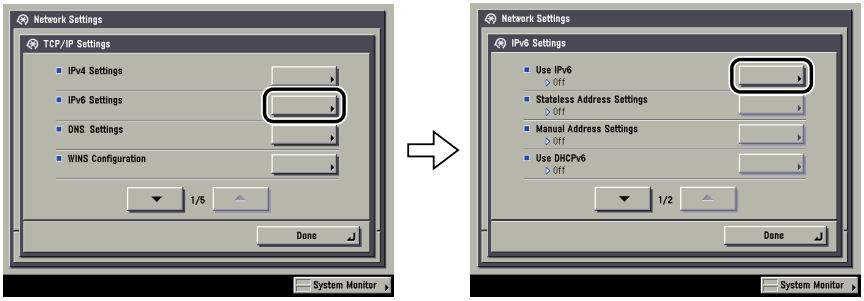
A stateless address is automatically set using the machine's MAC address and the prefix (information indicating the network belonged to) included in the RA (Router Advertisement) notified by the router when the machine is started.

■ Stateful address (0 or 1)

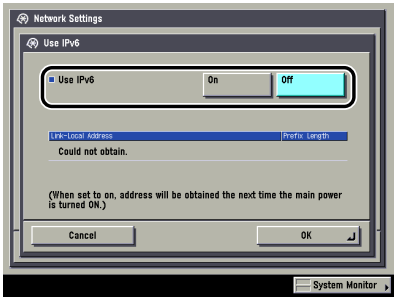
A stateful address can be obtained from a DHCP server using DHCPv6.

---

1 On the TCP/IP Settings screen, press [IPv6 Settings] → [Use IPv6].

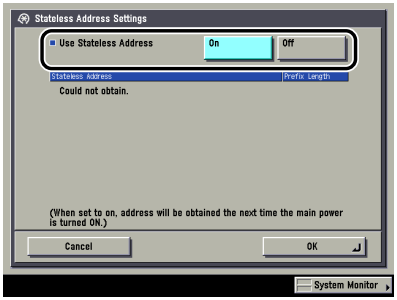


2 In [Use IPv6], specify the following.



[On] for <Use IPv6>: You can use an IPv6 network. A link local address is automatically set.

3 On the IPv6 Settings screen, press [Stateless Address Settings] → specify the following.

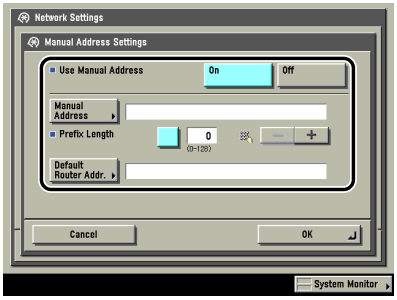


[On] for <Use Stateless Address>: A stateless address is automatically set when the machine is started.

NOTE

The stateless address is discarded when the machine is restarted (with the machine's main power switch ON).

4 On the IPv6 Settings screen, press [Manual Address Settings] → specify the following.



[On] for <Use Manual Address>: You can set the IPv6 address manually.

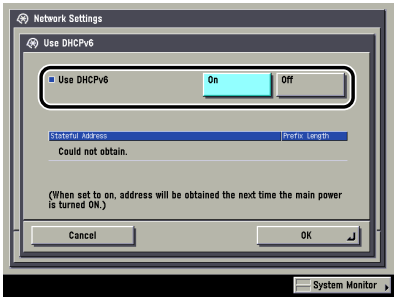
Enter the IPv6 address value in [Manual Address] and the IPv6 address prefix length in [Prefix Length].

Enter the default router address value in [Default Router Addr.]. If you do not want to specify the default router address, leave [Default Router Addr.] blank.

IMPORTANT

- You cannot set a multicast address, an address composed entirely of zeros, or an address that starts with 'fe80' other than 'fe80:0' or 'fe80:1' in [Manual Address]. You also cannot use a manual address if you leave [Manual Address] blank.
- You cannot enter a multicast address or an address composed entirely of zeros in [Default Router Addr.].

5 On the IPv6 Settings screen, press [Use DHCPv6] → specify the following.



[On] for <Use DHCPv6>: You can use DHCPv6 to obtain a stateful address from a DHCP server.

6 On the IPv6 Settings screen, press [IP Address Range Settings] → specify the following.

You need to set <RX/Print Range> if you are using the optional UFR II/PCL/PS Printer Kit, the optional Super G3 FAX Board, or the optional Universal Send Kit.

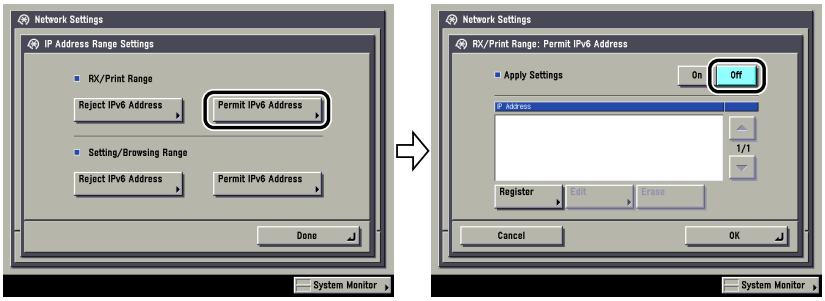
IMPORTANT

You can maintain security by setting the range of IPv6 addresses for computers that can obtain access to the machine.

- Once you set the range of IPv6 addresses of computers on which items for the machine can be set or browsed, it is not possible to use the Remote UI on computers whose IPv6 addresses are not allowed; a utility on the computers cannot be used to set or browse detailed information concerning the machine.
- Once you set the range of IPv6 addresses of computers from which data (print/fax/I-fax job) can be sent to the machine, the machine rejects data sent from computers whose IPv6 addresses are not allowed. (Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

● **If you do not want to restrict the IPv6 addresses of computers from which data (print/fax/I-fax job) can be sent to the machine:**

❑ <Apply Settings> of [Permit IPv6 Address] for <RX/Print Range>: [Off]

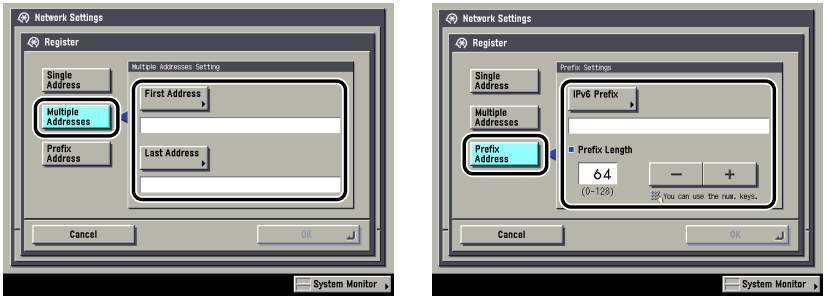


❑ <Apply Settings> of [Reject IPv6 Address] for <RX/Print Range>: [Off]

● **If you want to restrict the IPv6 addresses of computers from which data (print/fax/I-fax job) can be sent to the machine:**

❑ <Apply Settings> of [Permit IPv6 Address] for <RX/Print Range>: [On]

Press [Register] → store only one IPv6 address or a range of IPv6 addresses that are to be permitted. Also specify the prefix and prefix length for the IPv6 address.



❑ <Apply Settings> of [Reject IPv6 Address] for <RX/Print Range>: [On]

Press [Register] → store only one IPv6 address or a range of IPv6 addresses that are to be rejected. Also specify the prefix and prefix length for the IPv6 address.

● **If you do not want to restrict the IPv6 addresses of computers on which the machine setting items can be set or browsed (using the Remote UI or a utility):**

❑ <Apply Settings> of [Permit IPv6 Address] for <Setting/Browsing Range>: [Off]

❑ <Apply Settings> of [Reject IPv6 Address] for <Setting/Browsing Range>: [Off]

● **If you want to restrict the IPv6 addresses of computers on which the machine setting items can be set or browsed (using the Remote UI or a utility):**

❑ <Apply Settings> of [Permit IPv6 Address] for <Setting/Browsing Range>: [On]

Press [Register] → store only one IPv6 address or a range of IPv6 addresses that are to be permitted. Also specify the prefix and prefix length for the IPv6 address.

❑ <Apply Settings> of [Reject IPv6 Address] for <Setting/Browsing Range>: [On]

Press [Register] → store only one IPv6 address or a range of IPv6 addresses that are to be rejected. Also specify the prefix and prefix length for the IPv6 address.

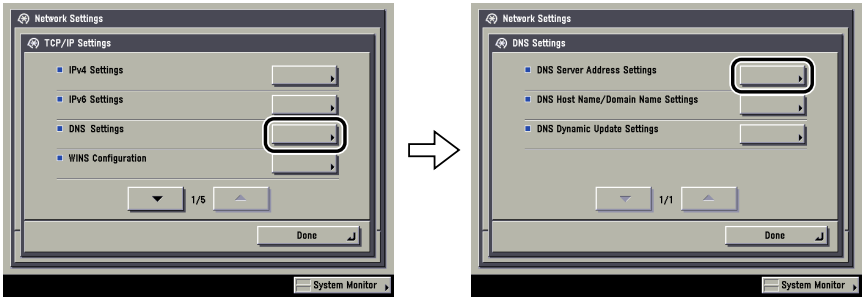
IMPORTANT

- A total of eight (groups) of IPv6 addresses, ranges of IPv6 addresses, or IPv6 address prefixes can be set.
- You cannot specify a multicast address or an address composed entirely of zeros for an IPv6 address.
- If you enter '0' in [Prefix Length], all IPv6 addresses are not permitted.
- If you enter '128' in [Prefix Length], the IPv6 addresses of the machine are not permitted.
- If you want to enter a range of addresses, make sure that the number entered in [First Address] is less than the number entered in [Last Address].
- If <Apply Settings> is set to 'Off' for both [Permit IPv6 Address] and [Reject IPv6 Address], all IPv6 addresses are permitted.
- If <Apply Settings> is set to 'Off' for [Permit IPv6 Address] and <Apply Settings> is set to 'On' for [Reject IPv6 Address], IPv6 addresses that are beyond the range specified in [Reject IPv6 Address] are permitted.
- If <Apply Settings> is set to 'On' for [Permit IPv6 Address] and <Apply Settings> is set to 'Off' for [Reject IPv6 Address], IPv6 addresses that are beyond the range specified in [Permit IPv6 Address] are not permitted.
- If <Apply Settings> for both [Permit IPv6 Address] and [Reject IPv6 Address] is set to 'On', IPv6 addresses that are beyond the ranges specified in both [Permit IPv6 Address] and [Reject IPv6 Address] are not permitted.
- If <Apply Settings> for both [Permit IPv6 Address] and [Reject IPv6 Address] is set to 'On', IPv6 addresses that are within the ranges specified in both [Permit IPv6 Address] and [Reject IPv6 Address] are not permitted.
- If the usage of a protocol or print application is not permitted on your device, it cannot be used even if its IPv6 address is permitted on the machine. Configure the settings of the device to permit the protocol or print application.

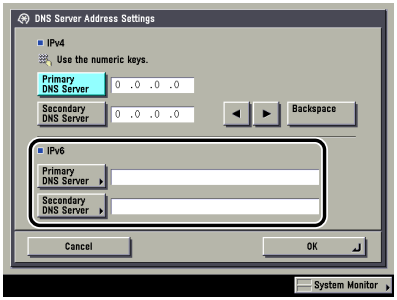
NOTE

This machine logs attempts to gain access from IPv6 addresses that it has been set to reject. For instructions on how to refer to the access log, see "Viewing the Network Access Log," on p. 8-24.

7 On the TCP/IP Settings screen, press [DNS Settings] → [DNS Server Address Settings].



8 In <IPv6>, specify the following.



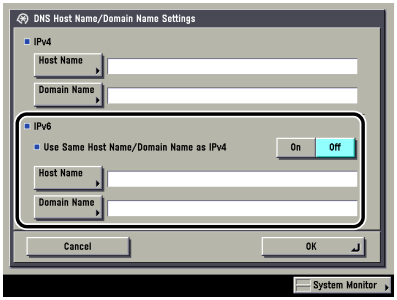
If you want to use dynamic DNS updating, enter the IPv6 address of the DNS server in [Primary DNS Server].

If you do not want to specify a secondary DNS server, leave [Secondary DNS Server] blank.

IMPORTANT

- You cannot enter a multicast address or address composed entirely of zeros in [Primary DNS Server] or [Secondary DNS Server].
- If you set <Use DHCPv6> to 'On' in step 5, the IPv6 address of a DNS server you set manually will be overwritten.

9 On the DNS Settings screen, press [DNS Host Name/Domain Name Settings] → in <IPv6>, specify the following.

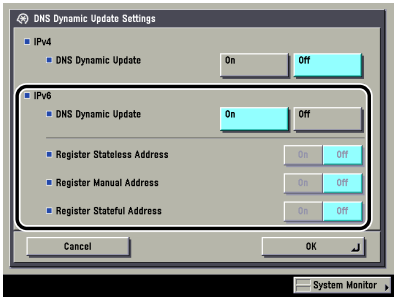


[On] for <Use Same Host Name/Domain Name as IPv4>: You can set the same host name or domain name used with IPv4 communication for IPv6 communication. If you set <Use Same Host Name/Domain Name as IPv4> to 'Off', enter the name of the machine in [Host Name] and the name of the domain the machine belongs to in [Domain Name]. It is necessary to set a host name and domain name if you want to use dynamic DNS updating.

IMPORTANT

If you set <Use DHCPv6> to 'On' in step 5, the domain name you set manually will be overwritten.

10 On the DNS Settings screen, press [DNS Dynamic Update Settings] → in <IPv6>, specify the following.



[On] for <DNS Dynamic Update>: If your environment includes a dynamic DNS server, you can automatically register the IPv6 address, host name, and domain name set for the machine in the DNS server using dynamic DNS updating.

[On] for <Register Stateless Address>: You can automatically register a stateless address in the DNS server using dynamic DNS updating.

[On] for <Register Manual Address>: You can automatically register a manual address in the DNS server using dynamic DNS updating.

[On] for <Register Stateful Address>: You can automatically register a stateful address in the DNS server using dynamic DNS updating.

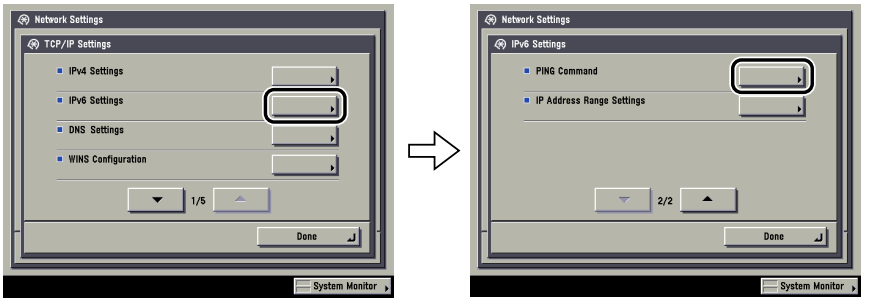
IMPORTANT

Windows 2000 Server and Windows Server 2003 do not support DHCPv6 servers.

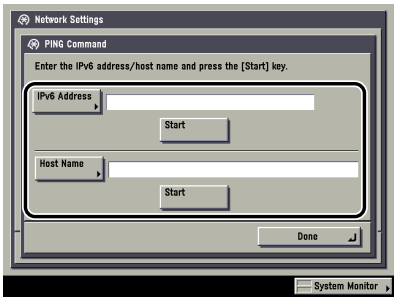
Confirming TCP/IP Settings (IPv6)

The following is the procedure for confirming that the TCP/IPv6 network connections are properly set.

1 On the TCP/IP Settings screen, press [IPv6 Settings] → [PING Command].



2 In [PING Command], check the following.



Pressing [Start] after entering an IPv6 address existing on the network in [IPv6 Address] displays the result of the PING command on the touch panel display.

Pressing [Start] after entering the machine's host name in [Host Name] displays the result of the PING command on the touch panel display.

If this result is inappropriate, check the settings described in "Interface Settings," on p. 2-9, and "TCP/IP Settings (IPv6)," on p. 3-18.

IMPORTANT

- If you set the startup time of the machine's network functions by following the procedure in "Startup Time Settings," on p. 3-42, execute the PING command only after the time set as the startup time passes.
- If you connect the machine to a switching hub, the machine may not be able to connect to a network even though your network settings are appropriate. This problem may be resolved by delaying the startup of network communications for the machine. See "Startup Time Settings," on p. 3-42 for information on how to set up the startup time.

Key Pair and Server Certificate Settings for Encrypted SSL Communication

The key pair and server certificate are required for performing SSL encrypted communication, for use with the following items. This section describes how to specify the key pair and server certificate settings from the control panel of the machine.

- [IPP Print Settings] (See step 13 of "TCP/IP Settings (IPv4)," on p. 3-3.)
- [E-Mail/I-Fax] (See "E-Mail/I-Fax Settings," on p. 3-39.)
- [Remote UI] (See the *Remote UI Guide*.)
- MEAP functions via a web browser (See the *MEAP SMS Administrator Guide*.)
- [Device Information Delivery Settings] (See the *Reference Guide*.)
- Department IDs/Passwords Confirmation (See step 19 of "TCP/IP Settings (IPv4)," on p. 3-3.)

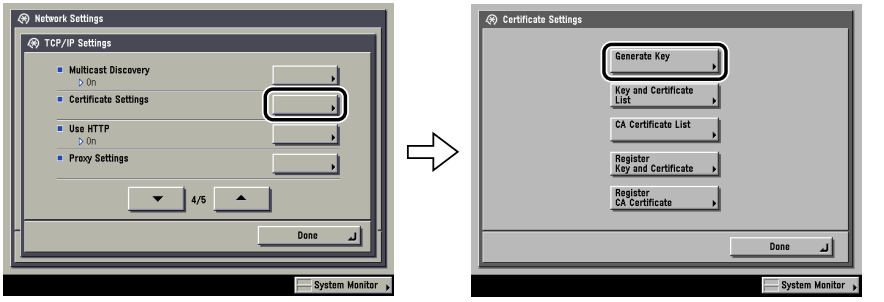
Generating a Key Pair and Server Certificate

It is necessary to generate and register a key pair in order to use encrypted SSL communication for IPP printing, e-mail and I-faxes, the Remote UI, MEAP functions via a web browser, and device information delivery, or confirm Department IDs and passwords.
A key pair and server certificate are preinstalled in the machine. You can also use this key pair and server certificate to enable encrypted SSL communication.
The procedure for generating and registering a key pair and self-signed server certificate using the control panel of the machine is as follows:

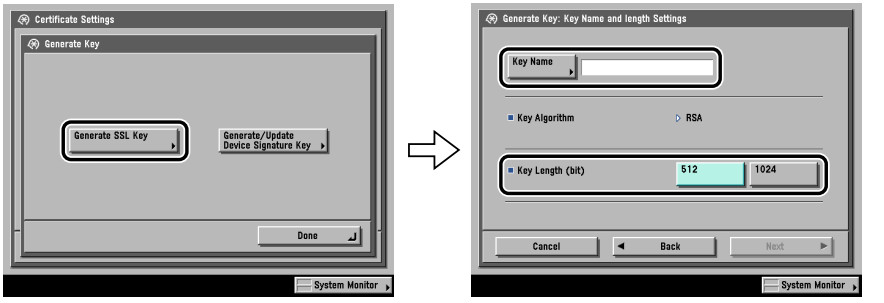
IMPORTANT

Up to two key pairs can be registered.

1 On the TCP/IP Settings screen, press [Certificate Settings] → [Generate Key].



2 Press [Generate SSL Key] → specify the following.



In [Key Name], enter a name for the key pair → select a key length.

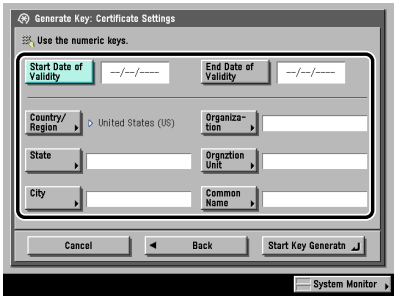
IMPORTANT

- Up to 24 alphanumeric characters can be entered for [Key Name].
- You cannot generate a key pair with a key length other than 512 or 1024 bit.

NOTE

You cannot specify 'Device Signature Key' (used for key pairs for adding digital signatures to PDFs) or 'AMS' (used for key pairs for device access control) as the name for the key pair.

3 Press [Next] → set the self-signed server certificate.



You cannot set an end date which is earlier than the start date.

Set at least one of the following items → press [Start Key Generatn] to generate a key. You cannot issue a server certificate if all the items are left blank. When using IPPS printing with Windows Vista, make sure to enter the IP address of the machine in [Common Name].

Items you can set:

[Country/Region]:	Select the country/region name from the 25 countries/ regions in the list, or enter an Internet country code (2 characters maximum).
[State]:	Set the state name (24 characters maximum).
[City]:	Set the city name (24 characters maximum).
[Organization]:	Set the organization name (24 characters maximum).
[Orgnztion Unit]:	Set the organization unit, such as the department name (24 characters maximum).
[Common Name]:	Set the IP address or FQDN (for example, starfish.company.com) of the machine (24 characters maximum).

IMPORTANT

- A DNS server is necessary to use the FQDN of the machine in [Common Name]. Use the IP address of the machine if you do not have a DNS server.
- The key pair you have registered cannot be used for encrypting communications with SSL until it has been set as the default key pair. For instructions on how to set the default key pair, see "Editing Key Pairs and Server Certificates," on p. 3-31.

NOTE

- To confirm the key pair and server certificate you have registered, see "Editing Key Pairs and Server Certificates," on p. 3-31.
- After pressing [Start Key Generatn], you cannot use any of the keys until a key pair has been generated and registered.

Registering a Key Pair File and Server Certificate File Installed from a Computer

You can install a key pair from a computer in order to use encrypted SSL communication for IPP printing, e-mail and I-faxes, the Remote UI, MEAP functions via a web browser, and device information delivery, or confirm Department IDs and passwords.
A key pair file and server certificate file created on a computer can be installed in the machine using a web browser (Remote UI).
The procedure for registering installed files in the machine using the control panel is as follows:

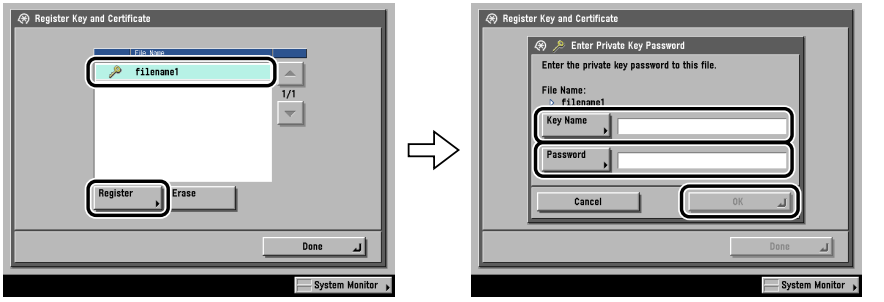
IMPORTANT

Up to two key pairs can be registered.

NOTE

For instructions on how to install a key pair file and server certificate file, see the *Remote UI Guide*.

1 On the TCP/IP Settings screen, press [Certificate Settings] → [Register Key and Certificate] → specify the following.



Select the file to register → press [Register] → enter the name of the private key in [Key Name], and the password for the private key in [Password].

To erase an unnecessary file, select the file → press [Erase].

IMPORTANT

You can register only key pair files which use the RSA algorithm.

NOTE

For instructions on how to confirm a registered key pair and server certificate, see "Editing Key Pairs and Server Certificates," on p. 3-31.

Editing Key Pairs and Server Certificates

You can confirm the settings of registered key pairs and server certificates. You can also erase unnecessary key pairs and server certificates, and set the default key pair. The key pair set as the default key pair is used for SSL communication.

1 On the TCP/IP Settings screen, press [Certificate Settings] → [Key and Certificate List] → [Key and Certificate List for this Machine] → specify the following.

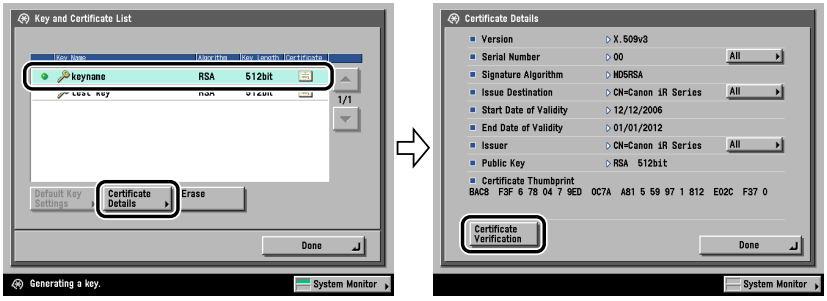
If (invalid) is displayed to the left of a key pair, it is corrupted or invalid. After erasing the corrupted or invalid key pair, register a key pair (see "Generating a Key Pair and Server Certificate," on p. 3-27 or "Registering a Key Pair File and Server Certificate File Installed from a Computer," on p. 3-30).

NOTE

The Device Signature Key is a key pair required for a device signature. For more information, see "Confirming a Key Pair and Device Certificate," on p. 3-37.

● **If you want to confirm a server certificate:**

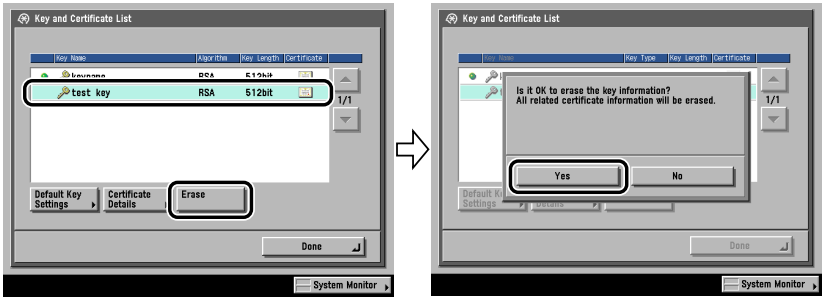
❑ Select the key pair for the server certificate you want to confirm → press [Certificate Details] → [Certificate Verification].



If [Certificate Verification] is grayed out or <The key is corrupted or invalid.> is displayed, you cannot use the key pair. After erasing the corrupted or invalid key pair, register a key pair (see "Generating a Key Pair and Server Certificate," on p. 3-27 or "Registering a Key Pair File and Server Certificate File Installed from a Computer," on p. 3-30).

● **If you want to erase a registered key pair:**

❑ Select the key pair to erase → press [Erase].



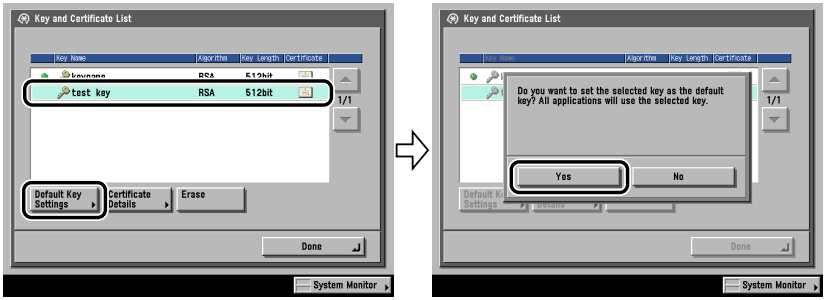
IMPORTANT

The key pair with (default) displayed to the left of it is set as the default key pair. If SSL is set to 'On' for any of the following items, that key pair cannot be erased. The key pair can be erased when all of the settings are set to 'Off'.

- [Remote UI] (See the *Remote UI Guide*.)
- [Use HTTP] in [MEAP Settings] (See the *MEAP SMS Administrator Guide*.)
- [IPP Print Settings] (See step 13 of "TCP/IP Settings (IPv4)," on p. 3-3.)
- <SMTP Receipt> in [E-Mail/I-Fax] (See step 2 of "E-Mail/I-Fax Settings," on p. 3-39.)
- [Receive Restriction for Each Function] in [Device Information Delivery Settings] (See the *Reference Guide*.)
- [Dept. ID Management Password Confirmation] (See step 19 of "TCP/IP Settings (IPv4)," on p. 3-3.)

● **If you want to set the default key pair:**

❑ Select the key pair to set as the default key pair → press [Default Key Settings].



NOTE

- The key pair with (default) displayed to the left of it is set as the default key pair. To change the default key pair, select a key pair which does not have (default) displayed to the left of it.
- If you try to set the key pair with (invalid) displayed to the left of it as a default key, <Cannot set as the Default Key because this key is corrupted or invalid.> is displayed. After erasing the corrupted or invalid key pair, register a key pair (see "Generating a Key Pair and Server Certificate," on p. 3-27 or "Registering a Key Pair File and Server Certificate File Installed from a Computer," on p. 3-30).

Registering a CA Certificate File Installed from a Computer

Apart from the X.509 (DER) format CA certificate preinstalled in the machine, you can also register a CA certificate file which has been installed using a web browser (Remote UI).
The procedure for registering installed files in the machine using the control panel is as follows:

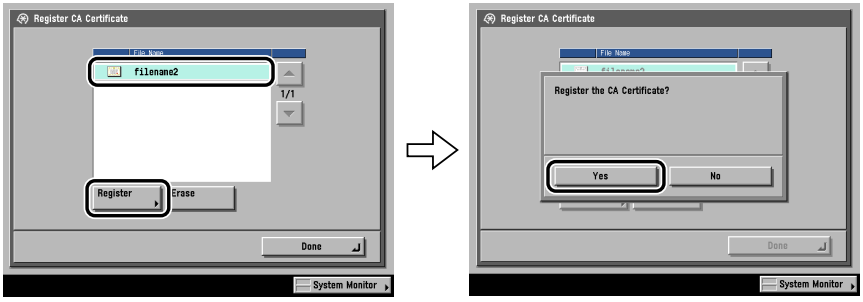
IMPORTANT

For instructions on how to install a CA certificate file, see the *Remote UI Guide*.

NOTE

Up to 50 CA certificate files can be registered.

1 On the TCP/IP Settings screen, press [Certificate Settings] → [Register CA Certificate] → specify the following.



Select the file to register → press [Register].

To erase an unnecessary file, select the file → press [Erase]. When the confirmation message is displayed, press [Yes].

To confirm the CA certificate you have registered, see "Editing a CA Certificate," on p. 3-34.

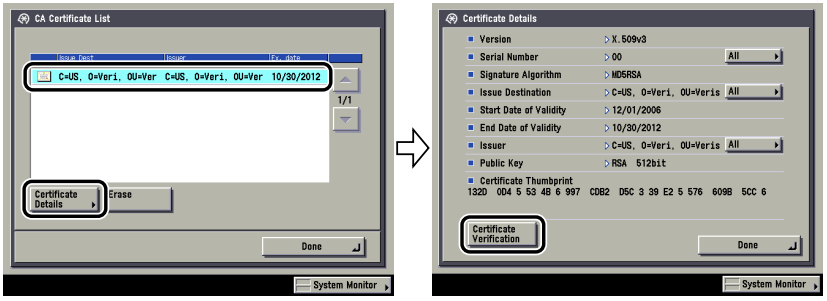
Editing a CA Certificate

You can confirm the settings of registered CA certificates. You can also erase unnecessary CA certificates.

1 On the TCP/IP Settings screen, press [Certificate Settings] → [CA Certificate List] → specify the following.

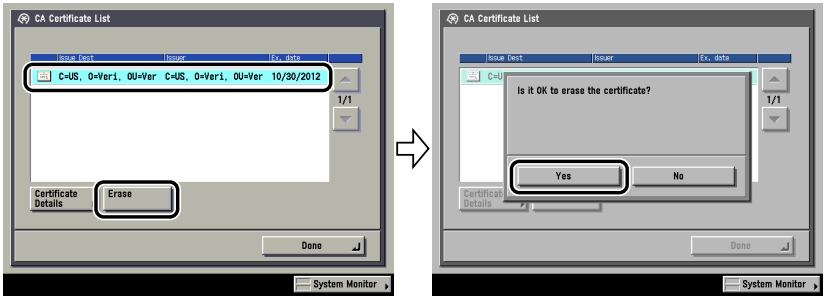
● **If you want to confirm a CA certificate:**

❑ Select the key pair for the CA certificate you want to confirm → press [Certificate Details] → [Certificate Verification].



● **If you want to erase a registered CA certificate:**

❑ Select the CA certificate to erase → press [Erase].



Generating and Confirming a Key Pair and Device Signature Certificate and User Certificate for Adding Digital Signatures to PDF Files

The machine can add the following two types of digital signatures to PDF files. This section describes the procedures for specifying and confirming the settings necessary for adding digital signatures to PDF files using the control panel of the machine.
For instructions on how to add digital signatures to PDF files, see the *Sending and Facsimile Guide* or the *Remote UI Guide*.

■ **Device Signature**
Enables the recipient to identify the device that scanned the document. This type of signature requires the optional Universal Send PDF Security Feature Set. To add a device signature to a PDF, set a key pair and device certificate. (See "Setting a Key Pair and Device Certificate," on p. 3-35.)

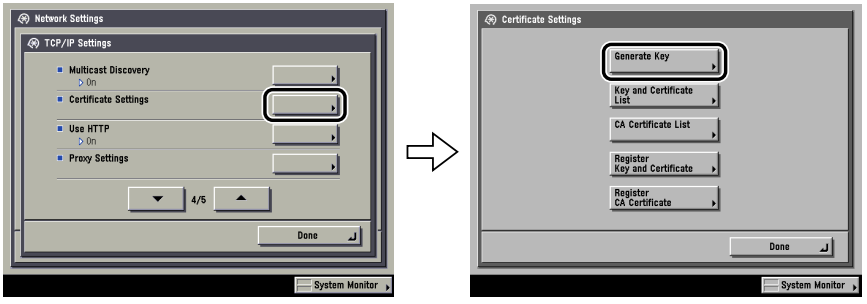
■ **User Signature**
Enables the recipient to identify the user who signed the document. This type of signature requires the optional Digital User Signature PDF Kit. To add a user signature to a PDF, it is necessary to install a key pair and user certificate in the machine from a computer. (See the *Remote UI Guide*.) You can confirm the installed key pair and user certificate using the control panel of the machine. (See "Confirming a Key Pair and User Certificate," on p. 3-38.)

Setting a Key Pair and Device Certificate

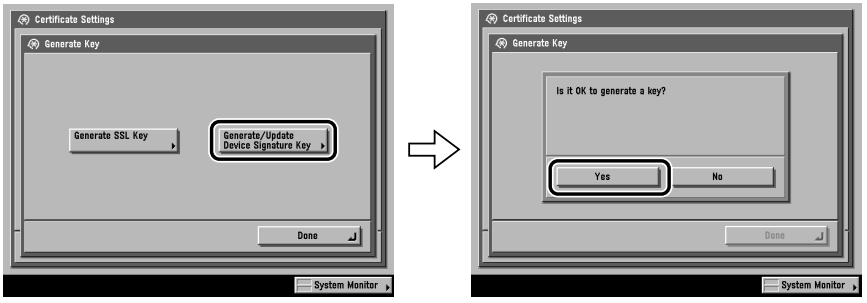
The following procedures describe how to generate and update the key pair and device certificate necessary for adding a device signature to a PDF.

NOTE
The optional Universal Send PDF Security Feature Set is necessary to add a device signature to PDF files. For more information on the equipment needed, see the *Sending and Facsimile Guide*.

1 On the TCP/IP Settings screen, press [Certificate Settings] → [Generate Key].



2 Press [Generate/Update Device Signature Key] → [Yes].



IMPORTANT

You can register only one key pair.

NOTE

The name of the generated/updated key pair is set to 'Device Signature Key'.
To confirm a key pair and device certificate, see "Confirming a Key Pair and Device Certificate," on p. 3-37.

Confirming a Key Pair and Device Certificate

The following procedure describes how to confirm a key pair and device certificate generated/updated in "Setting a Key Pair and Device Certificate," on p. 3-35.

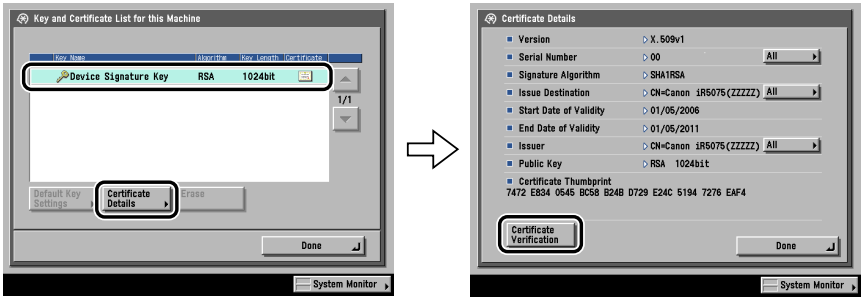
1 On the TCP/IP Settings screen, press [Certificate Settings] → [Key and Certificate List] → [Key and Certificate List for this Machine].

If (invalid) is displayed to the left of a key pair, the key pair is corrupted or invalid. Follow the procedure in "Setting a Key Pair and Device Certificate," on p. 3-35 to generate/update a key pair.

NOTE

You cannot delete or edit a key pair necessary for a device signature on the Key and Certificate List for this Machine screen.

2 Select 'Device Signature Key' → press [Certificate Details] → [Certificate Verification].



If <Certificate Verification> is grayed out or <The key is corrupted or invalid.> is displayed, you cannot use the key pair. Follow the procedure in "Setting a Key Pair and Device Certificate," on p. 3-35 to generate/update a new key pair.

NOTE

- <Certificate Thumbprint> contains sender information used to validate the reliability of a PDF with a device signature, by matching it with the MD5 or SHA-1 message digest number.
- The expiration date for the device signature is set to 5 years after its key pair was generated/updated.

Confirming a Key Pair and User Certificate

The following procedure describes how the system manager can confirm the key pairs and user certificates for all users.
Install the key pair and user certificate used for adding a user signature to PDF files from a computer. (See the *Remote UI Guide*.)

NOTE

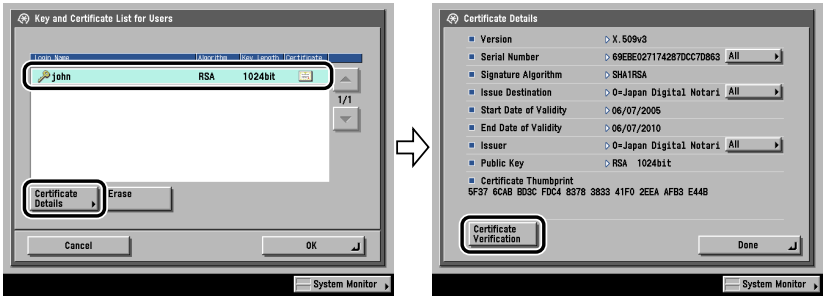
- To add a user signature to a PDF, it is necessary to log in to the machine using the SDL or SSO login service, and the optional Digital User Signature PDF Kit must be activated by registering a license key. For more information on the SDL and SSO login services, see the *MEAP SMS Administrator Guide*. For more information on the Digital User Signature PDF Kit, see the *Sending and Facsimile Guide*.
- You can also use the Remote UI to confirm the key pairs and user certificates for all users. For more information, see the *Remote UI Guide*.
- End users can display the Key and Certificate List for Users screen in [Communications Settings] → [TX Settings] under <Common Settings> → [Check User Signature Certificate] (from the Additional Functions screen). However, in this case, only the key pair and user certificate for the user who is currently logged in are displayed. Key pairs and user certificates for other users cannot be displayed. The user's key pair also cannot be deleted from this screen. An end user must use the Remote UI to delete their key pair. (See the *Remote UI Guide*).

1 On the TCP/IP Settings screen, press [Certificate Settings] → [Key and Certificate List] → [Key and Certificate List for Users] → specify the following.

User key pairs with (invalid) displayed to the left of them are corrupted or invalid key pairs. After erasing the key pair, install a key pair and user certificate in the machine from a computer. (See the *Remote UI Guide*.)

● If you want to confirm a user certificate:

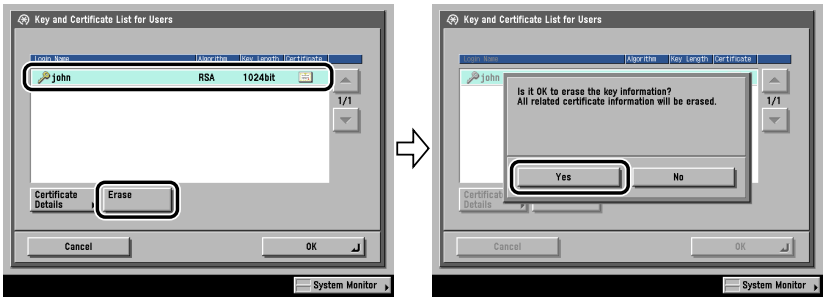
❑ Select the key pair for the certificate you want to confirm → press [Certificate Details] → [Certificate Verification].



If [Certificate Verification] is grayed out or <The key is corrupted or invalid.> is displayed, you cannot use the key pair. After erasing the corrupted or invalid key pair, install a new key pair and user certificate from a computer. (See the *Remote UI Guide*.)

● **If you want to erase a registered key pair:**

❑ Select the key pair to erase → press [Erase].



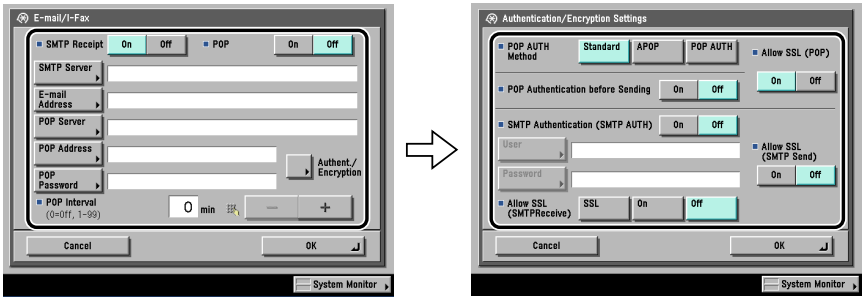
E-Mail/I-Fax Settings

IMPORTANT

Optional equipment is required to use the e-mail/I-fax functions. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.

1 On the Network Settings screen, press [E-mail/I-Fax].

2 Specify the mail server for receiving e-mail/I-faxes.



The machine supports both the SMTP and POP3 functions.

The machine can receive I-fax images and communication error notices only.

● **If you want to receive e-mail/I-faxes using the machine's own SMTP receiving function:**

❑ Register the host name of the machine with the DNS server → specify the following.

Press [On] for <SMTP Receipt> → press [Off] for <POP>.

In [E-mail Address], enter the e-mail address your machine will use. You can specify any user name (the part of the address located in front of the @ symbol). Enter the host name after the "@" symbol in the e-mail address.

If you select [SSL] for <Allow SSL (SMTP Receive)>, reception of only data encrypted using SSL is allowed and communications from the host not using SSL are rejected.

If you select [On] for <Allow SSL (SMTP Receive)>, depending on the request from the host, reception of data encrypted using SSL is allowed only when there is a request from the host.

IMPORTANT

- Even if you select [On] for <Allow SSL (SMTP Receive)>, the data will not be encrypted if the SMTP host does not support encryption.
- In order to select [SSL] or [On] for <Allow SSL (SMTP Receive)> to allow SSL transmission, it is necessary to generate a key pair in advance. For instructions on how to generate a key pair, see "Generating a Key Pair and Server Certificate," on p. 3-27.

● **If you want to receive e-mail/I-faxes using a POP server:**

❑ Press [On] for <POP> → press [Off] for <SMTP Receipt>.

In [E-mail Address], enter the e-mail address your machine will use.

In [POP Server], enter the IP address or name of the POP server using the keyboard on the touch panel display.

In [POP Address], enter the login name for access to the POP server.

In [POP Password], enter the password for access to the POP server.

Set <POP Interval> to the interval you want the POP server to check for incoming e-mail. If the interval is set to '0', the POP server is not checked automatically. For instructions on how to manually check the POP server, see Chapter 8, "Checking/Changing the Send/Receive Status," in the *Sending and Facsimile Guide*.

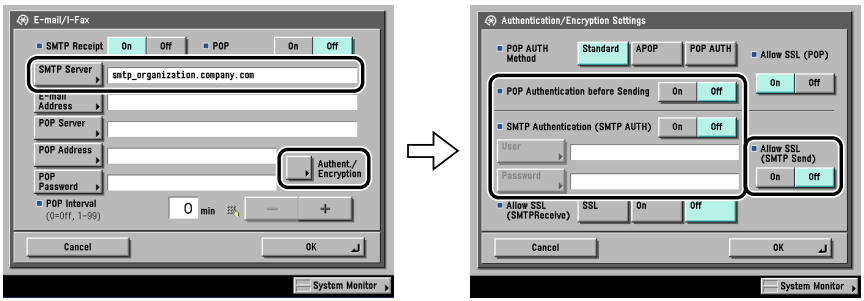
Select the authentication method supported by the POP server from [Standard], [APOP], or [POP AUTH] for <POP AUTH Method>.

If you want to send encrypted data, press [On] for <Allow SSL (POP)>.

IMPORTANT

- If the POP server does not support SSL encryption, data is not encrypted when [On] is selected for <Allow SSL (POP)>.
- In order to select [On] for <Allow SSL (POP)> to allow SSL transmission, it is necessary to generate a key pair in advance. For instructions on how to generate a key pair, see "Generating a Key Pair and Server Certificate," on p. 3-27.

3 Specify the mail server for sending e-mail/I-faxes.



● If you are using an SMTP server that requires POP before SMTP (method for authenticating users who have logged in the POP server before sending e-mail):

❑ In [SMTP Server], enter the IP address or name of the SMTP server using the keyboard on the touch panel display.

Press [On] for <POP Authentication before Sending> → press [Off] for <SMTP Authentication (SMTP AUTH)>.

● If you are using an SMTP server that requires SMTP Authentication (method for authenticating users who have logged in the SMTP server before sending e-mail):

❑ In [SMTP Server], enter the IP address or name of the SMTP server using the keyboard on the touch panel display.

Press [On] for <SMTP Authentication (SMTP AUTH)> → press [Off] for <POP Authentication before Sending>.

In [User], enter the user name used for logging in to the SMTP server. If you are using a Microsoft SMTP server, enter the user name in [User] using the following format: user name@domain name.

In [Password], enter the password used for logging in to the SMTP server.

To encrypt data to be sent using SSL, select [On] for <Allow SSL (SMTP Send)>.

IMPORTANT

If the SMTP host does not support encryption, data is not encrypted when [On] is selected for <Allow SSL (SMTP Send)>.

- **If you are using an SMTP server that does not require authentication for sending e-mail:**

  ❑ In [SMTP Server], enter the SMTP server IP address or name using the keyboard on the touch panel display.

  Press [Off] both for <SMTP Authentication (SMTP AUTH)> and <POP Authentication before Sending>.

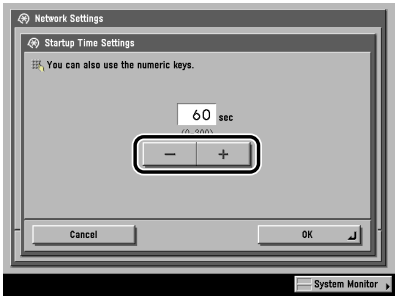
Startup Time Settings

If you connect the machine to a switching hub, it may not be able to connect to a network even though your network settings are set correctly.

This occurs because the spanning tree process performed between switching hubs prevents them from communicating with each other immediately after the machine connects to a switching hub.

In this case, use the following procedure to delay the start of communication.

1 On the Network Settings screen, press [Startup Time Settings] → specify the following.



Press [-] or [+] to set the time period to delay the startup of network communications for the machine.

Setting Up a Computer for Printing/Sending a Fax

After you have completed the protocol settings for printing and sending a fax with the machine, you are ready to set up each of the computers for printing or sending a fax.

■ Connecting to a TCP/IP Network

All computers that use the printer must have TCP/IP client software installed and must be enabled for TCP/IP network use. For details, see the manuals provided with the operating system.

■ Installing the Driver and Specifying the Port Setting

To print or send a fax from a computer, you must install a driver and specify a port setting. The port setting differs depending on the print application used for printing or sending a fax. Use the following information as a guide to determine the print application you are using, and then perform the necessary operations.

- LPD
  This is the print application generally used with TCP/IP.
  See "Printer Connection Method (LPD/Raw)," on p. 3-45.
- Raw
  This is a print application used with Windows. It can send a job to the machine at higher speeds than LPD.
  See "Printer Connection Method (LPD/Raw)," on p. 3-45.
- IPP/IPPS
  This is a print application that can be used with TCP/IP. IPP enables you to use the HTTP protocol to send data to a machine on an intranet/the internet. IPPS is a print application which performs encrypted SSL communication when using IPP.
  See "Printer Connection Method (IPP/IPPS)," on p. 3-52.
- FTP
  This is a print application that prints files by copying them to the printer using FTP client software.
  See "Printer Connection Method (FTP)," on p. 3-55.
- WSD
  This is a print application that can be used with Windows Vista.
  See "Printer Connection Method (WSD)," on p. 3-56.
- SMB
  This is a print application that can be used with a NetBIOS network.
  See Chapter 5, "Using a NetBIOS Network."

IMPORTANT

- Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address of a computer in which a driver is installed, you cannot print from the computer. (See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.)
- If you print with IPP, the [Pause Printing] and [Cancel All Documents] settings on the [Printer] menu in the Windows print queue cannot be used. (To view the print queue, click the [Start] menu → point to [Settings] → click [Printers] → double-click the icon of the machine.)

NOTE

- It is recommended that you install Canon LPR2 when using Raw or IPP in Windows 98/Me/2000/XP/Server 2003. Canon LPR2 enables you to set ports easily. For more information, see the *Canon LPR2 User's Guide* (PDF manual). For instructions on how to display the *Canon LPR2 User's Guide*, see the *Network Quick Start Guide*.
- If Windows 2000/XP/Server 2003/Vista is on your network, the following procedure enables you to set up a print server for more efficient management of network printers. Once a print server is set up, print jobs can be managed by the print server. Also, by setting up an alternate driver for the print server, printer drivers can be installed in each computer via the network.
  For instructions on how to set print servers, see the following procedures indicated in the manual for each driver. (Since the UFR II printer driver is not supported by Windows 98/Me, it cannot be used as an alternative driver.)
  - If you want to use the PCL printer driver
    See the procedure for alternative printer driver installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
  - If you want to use the PS printer driver
    See the procedure for alternative printer driver installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
  - If you want to use the fax driver
    See the procedure for alternative fax driver installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

Windows 98/Me

■ Installing a New Driver

1 Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen to see whether the IP address of the computer in which a driver is to be installed is permitted. For details, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.

IMPORTANT

- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address, you cannot install a driver.
- If the IP address of the computer is beyond the range of the permitted addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 Install the driver.

Install the driver according to the following procedures indicated in the manual for each driver:

- If you want to use the PCL printer driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
- If you want to use the PS printer driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
- If you want to use the fax driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

IMPORTANT

If your computer fails to transmit data to the printer during the driver installation, when the error message appears, click [No] → set the byte count mode to off.

NOTE

- The print application will be LPD and the print queue will be set to <LP> if the driver has been installed according to the above procedures.
- This machine enables you to specify print queues other than <LP>. For details on print queues and instructions on how to change the settings, see "Changing the Port after Installing the Driver," on p. 3-46.

■ *Changing the Port after Installing the Driver*

1 Install Canon LPR2, and change the port settings.

For instructions on how to install Canon LPR2 and set ports, see the *Canon LPR2 User's Guide* (PDF manual). For instructions on how to display the *Canon LPR2 User's Guide*, see the *Network Quick Start Guide*.

IMPORTANT

If you use LPD, enter one of the following in [LPR Queue Name] in the [Add Port] dialog box of Canon LPR2:

- LP
  The machine prints according to its spool settings. Normally enter <LP> as a print queue.
- SPOOL
  The machine prints only after spooling a print job on the hard disk, regardless of its spool settings.
- DIRECT
  The machine prints without spooling a print job on the hard disk, regardless of its spool settings.

Windows 2000/XP/Server 2003/Vista

In the following procedures, items displayed on the screens for Windows 2000 are used. The items displayed may differ according to your operating system.

NOTE

If you are using Windows Vista, a dialog box may be displayed while you are performing the procedure. In this case, enter a user name and password. For more information, see the manuals provided with the operating system.

1 Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen to see whether the IP address of the computer in which a driver is to be installed is permitted. For details, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.

IMPORTANT

- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address, you cannot install a driver.
- If the IP address of the computer is beyond the range of the permitted addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 Install the driver.

Install the driver according to the following procedures indicated in the manual for each driver:

- If you want to use the PCL printer driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
- If you want to use the PS printer driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
- If you want to use the UFR II printer driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *UFR II Driver Guide*.
- If you want to use the fax driver
  See the procedure for dynamic installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

NOTE

- The print application will be LPD and the print queue will be set to <LP> if the driver has been installed according to the above procedures.
- This machine enables you to specify print queues other than <LP>. You can also use Raw as the print application. For instructions on how to change the settings, see "Changing the Port after Installing the Driver," on p. 3-48.

■ *Changing the Port after Installing the Driver*

1 Install Canon LPR2, and change the port settings.

If you are using Windows Vista or you do not want to use Canon LPR2, proceed to step 2.

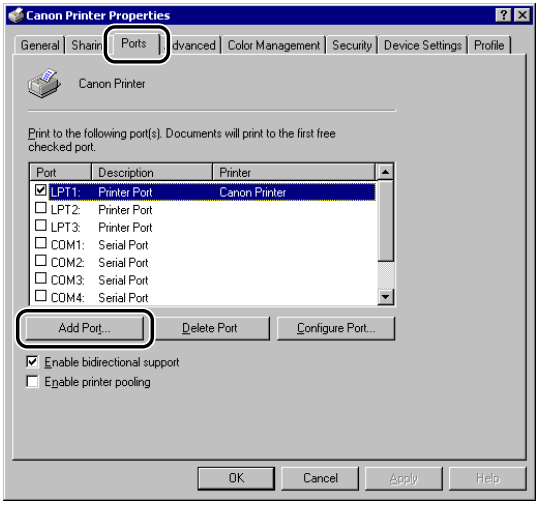
For instructions on how to install Canon LPR2 and set ports, see the *Canon LPR2 User's Guide* (PDF manual). For instructions on how to display the *Canon LPR2 User's Guide*, see the *Network Quick Start Guide*.

IMPORTANT

If you use LPD, enter one of the following in [LPR Queue Name] in the [Add Port] dialog box of Canon LPR2:

- LP
  The machine prints according to its spool settings. Normally enter <LP> as a print queue.
- SPOOL
  The machine prints only after spooling a print job on the hard disk, regardless of its spool settings.
- DIRECT
  The machine prints without spooling a print job on the hard disk, regardless of its spool settings.

2 In the printer properties dialog box of the printer you installed, select the [Ports] sheet → click [Add Port].

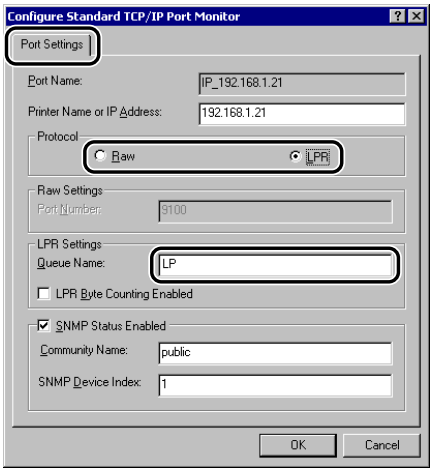


3 In the [Printer Ports] dialog box, from [Available ports types], select [Standard TCP/IP Port] → click [New Port].

4 According to the instructions on the Add Standard TCP/IP Printer Port Wizard, in [Printer Name or IP Address], enter the printer IP address or printer host name → exit the Wizard.

If the dialog box displays <Additional Port Information Required>, follow the instructions on the screen to search again, or click [Standard] → click [Canon Network Printing Device with P9100] under [Device type].

5 In the printer properties dialog box, click [Configure Port] → select [LPR] or [Raw].



If you use LPD, you can specify one of the following print queues in [Queue Name].

- LP
  The machine prints according to its spool settings. Normally, <LP> is entered as a print queue.
- SPOOL
  The machine prints only after spooling a print job on the hard disk, regardless of its spool settings.
- DIRECT
  The machine prints without spooling a print job on the hard disk, regardless of its spool settings.

Mac OS X

1 Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen to see whether the IP address of the computer in which a driver is to be installed is permitted. For details, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.

IMPORTANT

- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address, you cannot install a driver.
- If the IP address of the computer is beyond the range of the permitted addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 Install the driver.

Install the driver according to the instructions in the manual for each driver.

- If you want to use the UFR II printer driver
  See the *Mac UFR II Driver Guide*.
- If you want to use the PS printer driver
  See the *Mac PS Driver Guide*.
- If you want to use a PS printer driver provided by Apple Inc.
  For instructions on how to install the corresponding PPD file from Canon, see the *Network Quick Start Guide*. For details about the PS printer driver, see the documentation provided with your Macintosh.

IMPORTANT

If you are using the optional imagePASS, for details, see the manual provided with the optional imagePASS.

UNIX

The machine supports the LPD print application for printing over TCP/IP networks.

The following procedures are only examples. The setup procedures for your environment may differ.

IMPORTANT

If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address, you cannot specify the spooling system.

1 Log in to a workstation as a superuser → set up the spooling system.

● Example using Solaris 1.x:

❑ Add the following to the /etc/printcap file:

<Print queue name>|<comment>:\

:lp=<device special file>:\

:sd=<spool directory>:\

:rm=<printer IP address or host name>:

● Example using Solaris 2.x:

❑ Start the admintool utility → click [Browse] → [Printers] → [Edit] → [Add] → [Access to Printer] → in [Printer Name], enter the desired print queue name → in [Print Server], enter the IP address or printer host name.

NOTE

- The admintool utility is included with the operating system. For specific operating instructions, see the operating system manual.
- You can specify one of the following print queues.
  - LP
    The machine prints according to its spool settings. Normally, <LP> is entered as a print queue.
  - SPOOL
    The machine prints only after spooling a print job on the hard disk, regardless of its spool settings.
  - DIRECT
    The machine prints without spooling a print job on the hard disk, regardless of its spool settings.
- When the job log appears on the touch panel display of the machine, <unknown> may be displayed as the document name and user name of print data transmitted to the machine over a UNIX network.
  (To display the job log, press [System Monitor] → [Print] → [Log] on the touch panel display.)

Windows 98/Me

If you are using Windows 98/Me, you can also set IPP by installing the IPP Client software for Windows 98/Me supplied by Microsoft.

In the following procedures, items displayed on the screens for Windows 98 are used; items might differ depending on your operating system.

1 Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen to see whether the IP address of the computer in which a driver is to be installed is permitted. For details, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.

IMPORTANT

- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address, you cannot install a driver.
- If the IP address of the computer is beyond the range of the permitted addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 After installing Canon LPR2, restart the computer.

For instructions on how to install Canon LPR2 and set ports, see the *Canon LPR2 User's Guide* (PDF manual). For instructions on how to display the *Canon LPR2 User's Guide*, see the *Network Quick Start Guide*.

3 Install the driver.

Install the driver according to the following procedures indicated in the manual for each driver:

- If you want to use the PCL printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
- If you want to use the PS printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
- If you want to use the fax driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

When the dialog box for selecting the port appears during installation, click [Use Standard Port].

4 When you have finished installing the drivers, use Canon LPR2 to set the ports.

For instructions on how to install Canon LPR2 and set ports, see the *Canon LPR2 User's Guide* (PDF manual). For instructions on how to display the *Canon LPR2 User's Guide*, see the *Network Quick Start Guide*.

IMPORTANT

When manually entering a URL in [Printer URL] in the [Add Port] dialog box of Canon LPR2, use the following format:

- If you want to use regular IPP printing:
  http://< the IP address or host name of the machine>/ipp
- If you want to use encrypted communication and perform IPPS printing:
  https://<the IP address or host name of the machine>/ipp

Windows 2000/XP/Server 2003/Vista

If you are using Windows 2000/XP/Server 2003, you can also set IPP by installing Canon LPR2. Canon LPR2 enables you to set ports easily. For more information, see the *Canon LPR2 User's Guide* (PDF manual). For instructions on how to display the *Canon LPR2 User's Guide*, see the *Network Quick Start Guide*.

In the following procedures, items displayed on the screens for Windows 2000 are used. The items displayed may differ according to your operating system.

IMPORTANT

When using IPPS printing with Windows Vista, it is necessary to obtain the public key of the machine and install it in Windows Vista. For information on obtaining the public key, see "Obtaining the Public Key of the Machine to Use SSL with Windows Vista," on p. 8-25.

NOTE

If you are using Windows Vista, a dialog box may be displayed while you are performing the procedure. In this case, enter a user name and password. For more information, see the manuals provided with the operating system.

1 Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen to see whether the IP address of the computer in which a driver is to be installed is permitted. For details, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.

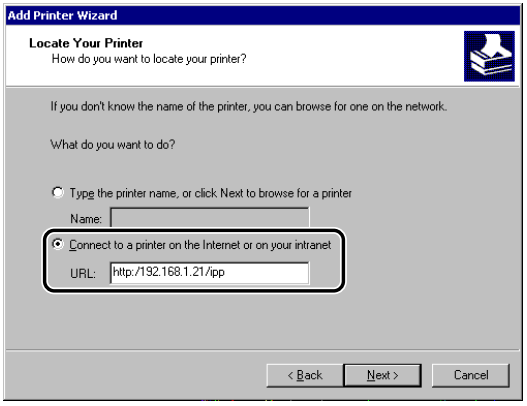
IMPORTANT

- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address, you cannot install a driver.
- If the IP address of the computer is beyond the range of the permitted addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 Start the Add Printer Wizard → select a network printer.

3 Select the option for locating the printer on the Internet or on your intranet → enter the URL of your printer.

For Windows 2000 (IPP)


Add Printer Wizard
Locate Your Printer
How do you want to locate your printer?
If you don't know the name of the printer, you can browse for one on the network.
What do you want to do?
Type the printer name, or click Next to browse for a printer
Name:
Connect to a printer on the Internet or on your intranet
URL:
http://192.168.1.21/ipp
< Back
Next >
Cancel

If you want to use regular IPP printing, enter the following URL in [URL].

http://<the IP address or host name of the machine>/ipp

If you want to use encrypted communication and perform IPPS printing, enter the following URL in [URL].

https://<the IP address or host name of the machine>/ipp

4 Follow the instructions on the screen to complete the installation.

Mac OS X 10.3 or later

If you are using the optional UFR II/PCL/PS Printer Kit, and a PS printer driver provided by Apple Inc. with the Mac OS, you can use IPP as the print application. After installing the PPD file according to the *Network Quick Start Guide*, specify the print settings according to the instructions in the documentation provided with your Macintosh.

Printer Connection Method (FTP)

The following procedure describes how to perform printing by using FTP.

1 Go to the MS-DOS prompt or the command prompt → log in to the machine's FTP server.

For details on user names and passwords, see step 10 in "TCP/IP Settings (IPv4)," on p. 3-3.

Command to be executed

1. ftp> bin *Change the file type to IMAGE (BINARY)
   Change the file type to IMAGE (BINARY) even if you are printing text files.
2. ftp> put <file name to be printed> *Upload the file to be printed
3. ftp> bye *Cut off server connection

The following is a UNIX command example.

1. U:> ftp 172.24.176.244 *Connect to server
   Connected to 172.24.176.244.
   220 Connection established.
2. Name (172.24.176.244:none): user_name *User login
   331 Password required to login.
3. Password: *Enter password
   230 User user_name logged in.
4. ftp> bin *Set file type
   200 Type set to IMAGE (binary).
5. ftp> put print.txt *Upload print file
   200 PORT command successful.
   150 Opened BINARY data connection for file transfer.
   226 Transfer complete.
6. ftp> bye *Cut off server connection
   221 Server closing down connection.

IMPORTANT

- Up to three clients can be logged in simultaneously to its FTP server.
- You cannot perform manipulation of files (changing file names, deleting, etc.) on the FTP server by using FTP commands.

Printer Connection Method (WSD)

The following procedure describes how to perform printing with WSD when using Windows Vista.

If a dialog box is displayed while you are performing this procedure, enter a user name and password. For more information, see the documentation provided with Windows Vista.

IMPORTANT

IPv6 is not supported.

1 Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 Settings screen to see whether the IPv4 address of the computer in which a driver is to be installed is permitted. For details, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3.

IMPORTANT

- If the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 Settings screen do not permit the IPv4 address, you cannot install a driver.
- If the IPv4 address of the computer is beyond the range of the permitted IPv4 addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 Install the driver.

● Using Windows Explorer

❑ With Windows Explorer, right-click the printer icon you want to use → select [Install].

● Using the Add Printer Wizard

❑ Start the Add Printer Wizard → select a network printer.

Setting Up a Computer as a File Server

To send data from the machine to a computer on your network, you need to specify the settings of the computer for receiving data.

You can send data over a TCP/IP network to any of the following:

- FTP server (Windows 2000/XP/Server 2003/Vista, UNIX, Linux, Mac OS X, imageWARE Gateway series)
- WebDAV server (Windows 2000 Server/2000 Professional/XP/Server 2003, UNIX, Linux, Mac OS X)
- Windows shared folder (Windows 98/Me/2000/XP/Server 2003)
- Samba shared folder (UNIX/Linux)

This section describes how to set up a computer as an FTP/WebDAV server. For instructions on how to configure a Windows and Samba shared folder, see "Setting Up a Computer as a File Server," on p. 5-11.

IMPORTANT

- Optional equipment is required to send data from the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- Samba 2.2.8a or later is supported.
- This section describes only the procedures for setting up a computer to receive data sent from the machine. To send data from the machine to a server on the network, you must enter an address setting from the control panel.
  For instructions on how to specify recipient address settings, see Chapter 2, "Basic Sending Methods," in the *Sending and Facsimile Guide*.
- The following procedure explains a sample FTP/WebDAV server setup. Depending on your environment, the actual setup procedure may differ.

Windows 2000/XP/Server 2003/Vista

This section describes the procedures for using the default home directory under [Default FTP Site]. To use other settings, enter the FTP site and home directory by referring to the IIS documentation.

It is recommended that the FTP server be configured by the network administrator.

In the following procedures, items displayed on the screens for Windows 2000 are used. The items displayed may differ according to your operating system.

IMPORTANT

- The use of Windows 2000 Server/XP Professional/Server 2003/Vista as an FTP server requires the installation of IIS. If IIS is not installed in the computer you are using, you will need to install the version of IIS for the operating system you are using before entering these settings. (See "System Requirements" in "Sending Data," on p. 1-6.) For installation procedures, see the manuals provided with your operating system.
- User authentication for access to FTP servers is performed using the local account database of Windows 2000 Server/XP Professional/Server 2003/Vista used as the FTP server. Therefore, it is not possible to use the account of a domain user registered in Windows 2000 Server/XP Professional/Server 2003/Vista to send data directly from the machine to FTP servers in other domains.
- IPv6 is not supported.

NOTE

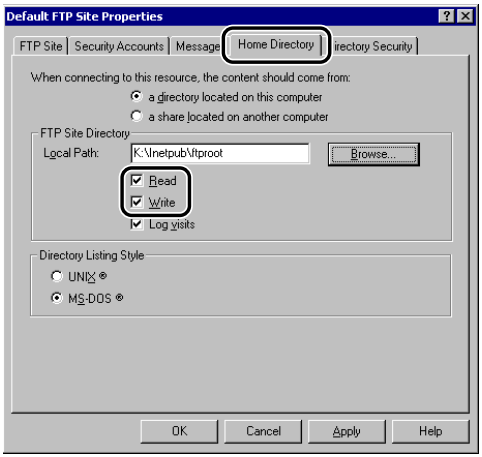
If you are using Windows Vista, a dialog box may be displayed while you are performing the procedure. In this case, enter a user name and password. For more information, see the manuals provided with the operating system.

1 Log on to Windows as a member of the group with access rights to the directory to be designated as the FTP site directory → start IIS.

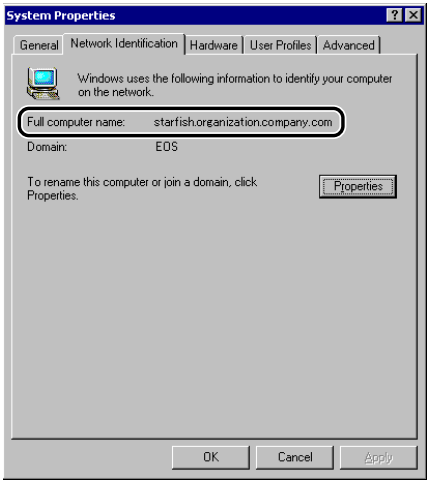
Depending on your environment, the access rights settings for a drive or directory may differ. For details, see the Windows manual.

2 In the [Default FTP Site Properties] dialog box, on the [Security Accounts] sheet, deselect the option which allows only anonymous connection.

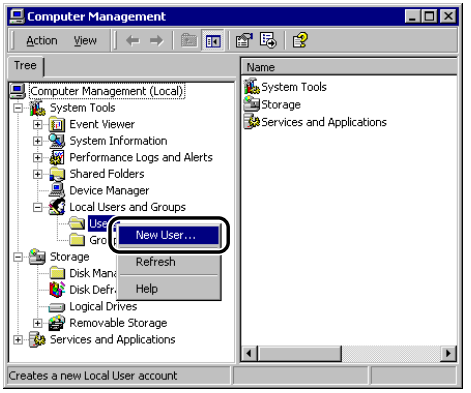
3 **In the [Default FTP Site Properties] dialog box, on the [Home Directory] sheet, select both [Read] and [Write].**



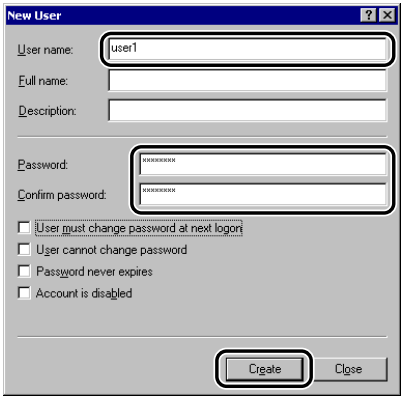
4 **Right-click [My Computer] → click [Properties] to open the [System Properties] dialog box → confirm [Full computer name].**



5 **Right-click [My Computer] → click [Manage] to open the [Computer Management] window → under [System Tools], in [Local Users and Groups], right-click the [Users] folder → click [New User].**



6 **In the [New User] dialog box, enter the user name in [User name] → enter the password in [Password] → re-enter the password in [Confirm Password] → click [Create].**



Enter a user name and a password not longer than 24 alphanumeric characters.

If [User must change password at next logon] is selected, any new users added must change their passwords in order to send data from the machine. (You cannot change the password from the control panel.)

NOTE

In the Active Directory environment, the procedures for setting up users differ from the above. For details, see the Windows manual.

7 Set a recipient address using the control panel.

Sample recipient setting:

- Server side settings:

  [Full Computer Name]: starfish.organization.company.com

  Create a directory named "share" in the specified FTP server's home directory "\Inetpub\ftproot", and then set "share" as the data destination.

- The machine's recipient settings:

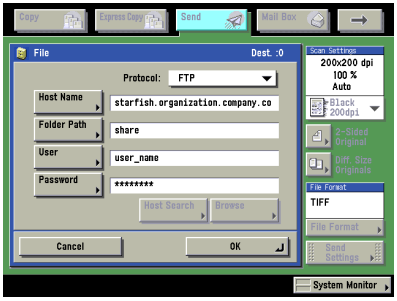
  <Protocol>: FTP

  [Host Name]: starfish.organization.company.com

  [Folder Path]: share

  [User]: User name entered in step 5

  [Password]: Password for the above user



IMPORTANT

- To use [Full computer name], which was confirmed in step 4, as the host name for [Host Name] as shown in the above example, it is necessary to use a DNS server. (This applies even if the machine and the FTP server are in the same subnet.) If no DNS server is available, the host name setting should be specified using the IP address of the FTP server.
- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you switch the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly.
- If you want to send to an IPv4 host using an FTP port other than port 21, set [Host Name] using the following format:
  <IPv4 address of FTP server>:<Port number>
  Example: 192.168.1.21:21000
- To send to an IPv6 host, set [Host Name] using the following format:
  <IPv6 address>:<Port number>
  Example: [5aed:90a0:bc05:01d2:568a:2fc0:0001:12ee]:21000

UNIX/Linux

For more information on the system requirements for using a UNIX/Linux computer as an FTP server, see "System Requirements" in "Sending Data," on p. 1-6.
In some environments, detailed settings may be required in order to use FTP. For details, consult your network administrator.

1 Log in to a workstation as a superuser → set up the users who send documents from the machine, and their passwords.

Enter a user name and a password not longer than 24 alphanumeric characters.

2 Create a shared directory to be used for recipient addresses, and then enable read access and write access by the users who will be sending data.

3 Set a recipient address using the control panel.

Sample recipient setting:

- Server side settings:

  [Host Name]: starfish

  [Domain]: organization.company.com

  The user's home directory is /home/hsato, and /home/hsato/share is the data destination.

- The machine's recipient settings:

  <Protocol>: FTP

  [Host Name]: starfish.organization.company.com

  [Folder Path]: Enter one of the following:

  share (when using relative path)
  /home/hsato/share (when using absolute path)

  [User]: User name entered in step 1

  [Password]: Password for the above user

For a sample screen, see the example of Windows 2000/XP/Server 2003/Vista screen (see p. 3-61).

IMPORTANT

- To use the host name of the above example for [Host Name], it is necessary to use a DNS server. (This applies even if the machine and the FTP server are in the same subnet.) If no DNS server is available, the host name setting should be specified using the IP address of the FTP server.
- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you switch the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly.
- If you want to send to an IPv4 host using an FTP port other than port 21, set [Host Name] using the following format:
  <IPv4 address of FTP server>:<Port number>
  Example: 192.168.1.21:21000
- To send to an IPv6 host, set [Host Name] using the following format:
  <IPv6 address>:<Port number>
  Example: [5aed:90a0:bc05:01d2:568a:2fc0:0001:12ee]:21000

Mac OS X

1 Log in to Mac OS X as Administrator → start the FTP services under Mac OS X.

2 Click the [Sharing] icon → [Allow FTP access] → click [Show All] on the toolbar.

3 Click [Users] to open the [Users] window → enter the name of the user to whom you want to send data from the machine through Mac OS X → enter the password.

Enter a user name, and a password not longer than 24 alphanumeric characters.

4 Create a shared folder to which files are to be sent.

Sample setting:

Create a folder named "iR_Folder" in the [Public] folder in the [Home] folder.

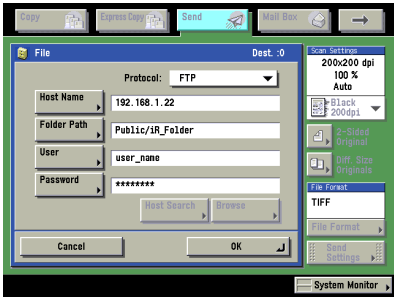
5 Select the shared folder created in step 4 → select [Show Info] from the [File] menu → select [Privileges] from [Show] → enable read & write access to the folder by the owner and members of the group to which the owner belongs.

6 Set a recipient address using the control panel.

Sample recipient setting:

- Server side settings (set using the above procedure):
  Create a folder named "iR_Folder" in the [Public] folder in the [Home] folder of the user named "yoko," and then specify the iR_Folder as the folder to which files are sent.
- The machine's recipient settings:

<Protocol>:	FTP
[Host Name]:	IP address of Macintosh
[Folder Path]:	Enter one of the following: Public/iR_Folder (If you enter a relative path) /Users/yoko/Public/iR_Folder (If you enter an absolute path)
[User]:	User name entered in step 3
[Password]:	Password for the above user



IMPORTANT

- Up to 255 alphanumeric characters can be entered for [Folder Path] on the control panel.
- If you switch the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly.
- If you want to send to an IPv4 host using an FTP port other than port 21, set [Host Name] using the following format:
  <IPv4 address of FTP server>:<Port number>
  Example: 192.168.1.21:21000
- To send to an IPv6 host, set [Host Name] using the following format:
  <IPv6 address>:<Port number>
  Example: [5aed:90a0:bc05:01d2:568a:2fc0:0001:12ee]:21000

FTP Server for imageWARE Gateway

An FTP server for imageWARE Gateway is required for receiving data from the machine, when used with imageWARE Gateway.

1 Set up the FTP server for imageWARE Gateway → specify the folder to store data sent from the machine.

For more information, see the *imageWARE Gateway User's Guide*.

NOTE

- Up to 255 alphanumeric characters can be entered for a folder name.
- Enter a user name and a password not longer than 24 alphanumeric characters.

2 On the FTP server for imageWARE Gateway, export destination data.

For more information, see the *imageWARE Gateway User's Guide*.

IMPORTANT

- A DNS server is needed to use an FQDN format (for example, starfish.organization.company.com) for the FTP server address. (A DNS server is also required if the machine and the FTP server are in the same subnet.) If you have not set up a DNS server, use IP addresses.
- Up to 128 alphanumeric characters can be entered for an FTP server address in the FQDN format.

3 Use the Remote UI of the machine to import the destination data exported in step 2 into the machine.

For instructions on how to import the destination data, see Chapter 3 "Customizing Settings," in the *Remote UI Guide*.

IMPORTANT

- If the System Manager ID and password of the machine are set, the dialog box for entering a user name and password appears; enter the System Manager ID in [User Name] and password in [Password].
- If you switch the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly.
- If the FTP port number is set to a value other than 21, specify the following for [Host Name]:
  <IP address of FTP server>:<Port number>
  Example: 192.168.1.21:21000

WebDAV Server Settings

The WebDAV sending function is a function for sending scanned image files, image files for received faxes, or image files sent from the User Inboxes or Memory RX Inbox of the machine, to a WebDAV server directory on the Internet or your intranet, using the WebDAV protocol.

This section describes the procedure for setting up a WebDAV publishing directory. Setting up a publishing directory enables users who have the necessary access privileges to manage files in the directory.
It is recommended that the WebDAV server be configured by the network administrator.

IIS for Windows 2000/2000 Server/XP/Server 2003

The procedure below uses items of Windows 2000 as an example. Depending on your environment, the items you see on the screen may differ.

IMPORTANT

- If IIS is not installed in the computer you are using, you will need to install the version of IIS for the operating system you are using before entering these settings. (See "System Requirements" in "Sending Data," on p. 1-6.) For installation procedures, see the manuals provided with your operating system.
- Server authentication is required for sending to a WebDAV server. Enable authentication before using a WebDAV server. The authentication methods available for the server are Anonymous, Basic, or Digest authentication, and authentication errors will occur if you try to use another authentication method. If the Anonymous authentication method is enabled, access rights are assigned to all users, and IIS always performs anonymous authentication, even if either of the other two authentication methods are enabled. (The priority level is Anonymous authentication > Digest authentication > Basic authentication.) If a high level of security is required, disable anonymous authentication. Use the user names and passwords registered in the address book of the WebDAV server for the Basic and Digest authentication methods. For instructions on how to set the authentication method for IIS, see the IIS documentation.
- The machine does not support sending to a Windows Vista computer using WebDAV. However, it is possible to view documents sent to the WebDAV server on the network from Windows Vista.

1 Right-click [My Computer] → in the [C:\Inetpub] folder, create a physical directory to use as the sending destination.

IMPORTANT

The physical directory cannot be created in the [C: \Inetpub\wwwroot] folder, because the default DACL of wwwroot differs from that of other directories.

2 Create a virtual directory.

- ❑ Start IIS → from the IIS snap-in, select the Web site to add a directory to.
- ❑ On the [Action] menu, point to [New] → select [Virtual Directory].
- ❑ Follow the instructions on the Virtual Directory Creation Wizard to complete the creation of the directory.

  Specify the directory path created in step 1 as a physical path to the virtual directory.

3 Select [Write] in the virtual directory properties to give access for writing files to the WebDAV clients.

If you are using Windows Server 2003, click [Allow] for [WebDAV] in [Web Service Extensions] in IIS Manager.

4 See the IIS documentation to specify the settings for SSL encrypted communication.

5 Set a recipient address from the control panel.

Sample recipient settings:

• Server side settings:

Create a physical directory named "C:\Inetpub\export\share\home\users\", and then create a virtual directory that links to the physical directory as the folder to which files are sent.

- The machine's address settings:

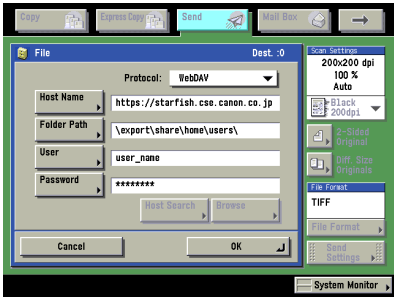
  <Protocol>: WebDAV

  [Host Name]: https://starfish.cse.canon.co.jp/

  [Folder Path]: \export\share\home\users\

  [User]: User name for the Basic and Digest authentication methods of the WebDAV server

  [Password]: Password for the Basic and Digest authentication method of the WebDAV server



IMPORTANT

- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you switch the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly.
- If the language of the touch panel display differs from the computer used as a master browser, [Host name] and [Folder path] may not be displayed correctly, or you may not be able to browse the directories.
- To send to an IPv6 host, set [Host Name] using the following format:
  <IPv6 address>:<Port number>
  Example: [5aed:90a0:bc05:01d2:568a:2fc0:0001:12ee]:21000

Apache for Windows 2000/2000 Server/XP/Server 2003/UNIX/Linux/ Mac OS X

The following procedures describe how to create the "users/user_name/WebDAV" directory using the procedure for creating the directory under "C:/Program Files/ Apache Group/Apache2" in the Windows file system as an example.

IMPORTANT

- Apache 1.3 is provided with Mac OS X. If Apache is not installed in the computer you are using, install the version for the operating system you are using (downloadable from the Apache Software Foundation Web site at http://www.apache.org/.) before entering these settings. (See "System Requirements" in "Sending Data," on p. 1-6.) If you want to use SSL, install a version of Apache that supports SSL (downloadable from the Apache-SSL official Web site at http://www.apache-ssl.org/). After installing Apache, start it and confirm that the Apache service is working properly.
- If you are using Mac OS X, root has ownership of the Apache setting file (/etc/httpd/ httpd.conf). In this case, perform one of the following procedures before specifying the WebDAV settings. For more information, see the documentation provided with your Macintosh or the Apache Software Foundation Web site at http://www.apache.org/.
  - Obtain root access from the Terminal, using the sudo or su command
  - In the Finder, temporarily change the permissions for the Apache setting file to give permission to the user who will set the WebDAV server (return the permissions for the Apache setting file to their original values after setting the WebDAV server.)
- Server authentication is required for sending to a WebDAV server. Enable authentication before using a WebDAV server. The authentication methods available for the server are the Basic and Digest authentication methods, and authentication errors will occur if you try to use another authentication method. If you set both the Basic and Digest authentication methods, the authentication method you set last will be enabled. Use the user names and passwords registered in the address book of the WebDAV server for authentication. For instructions on how to set authentication methods, see the Apache Software Foundation Web site at http://www.apache.org/.
- The machine does not support sending to a Windows Vista computer using WebDAV. However, it is possible to view documents sent to the WebDAV server on the network from Windows Vista.

1 Edit httpd.conf.

❑ Erase # on the left of the line to enable the WebDAV modules.

Directive to be changed:

- Before change
  #LoadModule dav_module modules/mod_dav.so
  #LoadModule dav_fs_module modules/mod_dav_fs.so
- After change
  LoadModule dav_module modules/mod_dav.so
  LoadModule dav_fs_module modules/mod_dav_fs.so

❑ Specify the server name.

Directive to be changed:

- Before change
  #ServerName localhost:80
- After change
  #ServerName localhost:80
  ServerName Apache-Server.ccm.canon.co.jp:80

❑ Change the user directory.

Directive to be changed:

- Before change
  UserDir "My Documents/My Website"
- After change
  #UserDir "My Documents/My Website"
  UserDir "C:/Program Files/Apache Group/Apache2/users""

❑ To enable the DAV function, add the following directive:

```
<Location /~user_name/WebDAV>
    DAV On
</Location>
```


2 After specifying the settings for SSL encrypted communication, configure httpd.conf so that the Apache service starts with SSL support.

For more information, see the Apache Software Foundation Web site at http://www.apache.org/.

3 Restart Apache.

4 Set a recipient address from the control panel of the machine.

Sample recipient settings:

- Server side settings:

Create the "users/user_name/WebDAV" directory under "C:/Program Files/Apache Group/Apache2" as the folder to send files to.

- The machine's address settings:

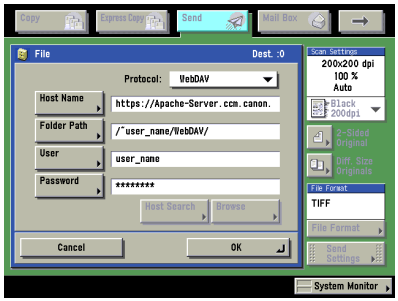
  <Protocol>: WebDAV

  [Host Name]: https://Apache-Server.ccm.canon.co.jp/

  [Folder Path]: /~user_name/WebDAV/

  [User]: User name for the Basic and Digest authentication methods of the WebDAV server

  [Password]: Password for the Basic and Digest authentication method of the WebDAV server



IMPORTANT

- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you switch the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly.
- If the language of the touch panel display differs from the computer used as a master browser, [Host name] and [Folder path] may not be displayed correctly, or you may not be able to browse the directories.
- To send to an IPv6 host, set [Host Name] using the following format:
  <IPv6 address>:<Port number>
  Example: [5aed:90a0:bc05:01d2:568a:2fc0:0001:12ee]:21000

Using a NetWare Network (Windows)

CHAPTER 4

This chapter describes settings and procedures for using the machine with a NetWare network.

NetWare Network Setup Procedures 4-2

NetWare Print Service Settings 4-3

- Types of Print Service 4-3
- Setup Using NetWare Administrator or PCONSOLE 4-4

Protocol Settings 4-8

Setting Up a Computer for Printing/Sending a Fax 4-12

- Connecting to a NetWare Network 4-12
- Printer Connection Method 4-12

Setting Up a Computer as a File Server 4-13

NetWare Network Setup Procedures

To use a NetWare network, it is necessary to perform the following procedures.

1 NetWare Print Service Settings (See "NetWare Print Service Settings," on p. 4-3.)

Specify the NetWare print service settings. (Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)
To specify the settings from the computer, use:

- NWADMIN or PCONSOLE (Novell software provided with NetWare)
- Canon utilities (NetSpot Device Installer, etc.)

2 Protocol Settings (See "Protocol Settings," on p. 4-8.)

Specify the protocol settings. To specify the settings, use:

- The machine's control panel
- The Remote UI (via a web browser)
- Canon utilities (NetSpot Device Installer, etc.)

3 Computer Settings for Printing/Sending a Fax (See "Setting Up a Computer for Printing/Sending a Fax," on p. 4-12.)

Specify the settings of each computer you use for printing or sending a fax. (Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

4 Computer Settings for a File Server (See "Setting Up a Computer as a File Server," on p. 4-13.)

Specify the settings of the computer receiving data sent from the machine. (Optional equipment is required to send data from the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

IMPORTANT

- You can specify the NetWare protocol settings if you are using the optional UFR II/PCL/PS Printer Kit, the optional Super G3 FAX Board, or the optional Universal Send Kit.
- If you are using the optional imagePASS, for steps 1 to 3, see the manual provided with the optional imagePASS, not this guide.
- It is recommended that steps 1, 2, and 4 above be performed by the network administrator.
- To configure settings with software other than the control panel of the machine, NWADMIN, PCONSOLE, or NetSpot Device Installer, TCP/IPv4 protocol must be supported by your network environment (IPv6 is not supported).

NetWare Print Service Settings

To print using a NetWare network, you need to specify print service settings, including print server and queue settings. You can use the software listed below to specify the print service settings from your computer.

- NWADMIN or PCONSOLE (Novell software provided with NetWare)
- Canon utilities (NetSpot Device Installer, etc.)

IMPORTANT

- To specify the print service settings from NWADMIN or NetSpot Device Installer, the computer must have Novell Client (NetWare Client by Novell) installed.
- The following procedures describe a sample NetWare setup. Depending on your environment, the actual setup procedure may differ.

NOTE

- You can specify the print server settings on the NetWare server and the print service settings of the machine at the same time, using NetSpot Device Installer. For instructions on how to specify the settings, see online help of NetSpot Device Installer.
- For more information on NetSpot Device Installer, see the *Reference Guide*.

Types of Print Service

Before specifying print service settings, refer to the following descriptions to determine the type of print service you are using.

NOTE

- Normally with NetWare 4.x or later, it is recommended that you use NDS print service. With NetWare 3.2, it is recommended that you use Bindery print service. This manual describes procedures for these two combinations only.
- With NetWare 5.x, you can use NDPS (Novell Distributed Print Services). For NDPS settings, see the NetWare manual.
- With NetWare 6, you can use iPrint print service. For iPrint settings, see the NetWare manual.

■ NDS (Novell Directory Service) and Bindery Mode

The machine network supports both the NDS and Bindery mode.
Determine the appropriate mode according to the network environment you are using. (If you are using NetWare 3.2, only the Bindery mode is available.)

■ Queue Server Mode and Remote Printer Mode

The machine supports both the queue server mode and the remote printer mode.

• Queue Server Mode

If the machine is used in the queue server mode, all print server functions are provided by the machine itself; no other print server hardware or software is required. In the NDS queue server mode (NDS PServer), the NDS print server is used for printing. In the Bindery queue server mode (Bindery PServer), the Bindery print server is used for printing. In the queue server mode, a separate NetWare user operating license is required for each machine.

• Remote Printer Mode

In the remote printer mode, NetWare print server is required to control the printer. The machine prints using the NDS print server in the NDS remote printer mode (NPrinter), and the Bindery print server in the Bindery remote printer mode (RPrinter).

Setup Using NetWare Administrator or PCONSOLE

Using NetWare Administrator in the NDS Queue Server Mode or the Remote Printer Mode (NetWare 4.x or Later)

1 Log in to NetWare as Administrator (or as a user of equivalent authority) → start NetWare Administrator → execute Quick Setup.

❑ Select the container object for the printer object you want to create → click [Print Services Quick Setup] on the [Tools] menu.

2 Specify the [Print Server name], [Printer], and [Print Queue] settings.

❑ Enter the print server name in [Print Server name].

To use an existing print server, click the button to the right of [Print Server name] → select a print server from the list box.

Be sure to remember the name of the print server. You need it to specify the machine's protocol settings.

❑ Under [Printer], enter the printer name in [Name].

❑ If you are using the queue server mode, select [Other/Unknown] from [Type].

❑ If you are using the remote printer mode, select [Parallel] from [Type] → click [Communication] to open the [Parallel Communication] dialog box.

Select [LPT1] from [Port], and [Manual load] under [Connection type]. Under [Interrupts], specify the appropriate setting for your environment → click [OK] to close the [Parallel Communication] window.

❑ Under [Print Queue], enter the queue name in [Name].

❑ In [Volume], enter the volume in which the queue is placed.

To use an existing print server, click the button to the right of [Volume] → select a print server from the list box.

❑ Click [Create] → exit NetWare Administrator.

3 If you are using the remote printer mode, start the print server.

❑ If you are using the NetWare file server as a print server, enter <Load PSERVER.NLM> in the file server → press [ENTER] on the keyboard.

Using PCONSOLE in the Queue Server Mode or Remote Printer Mode in the Bindery Mode (NetWare 3.2)

1 Log in to NetWare as Supervisor → start PCONSOLE.

2 If you have not set up a print server yet, set up the print server.

❑ On the [Available Options] menu, select [Print Server Information] → press [ENTER] on the keyboard.

❑ Press [INSERT] on the keyboard.

❑ Enter the name of the print server you are setting up → press [ENTER] on the keyboard.

Be sure to remember the name of the print server. You need it to specify the printer's protocol settings.

❑ Press [ESC] on the keyboard to return to the [Available Options] menu.

3 Set up a Queue, and then assign the print server to the queue.

❑ On the [Available Options] menu, select [Print Queue Information] → press [ENTER] on the keyboard.

❑ Press [INSERT] on the keyboard.

❑ Enter the name of the queue you are setting up → press [ENTER] on the keyboard.

❑ Select the name of the queue you specified → press [ENTER] on the keyboard.

❑ Select [Queue Servers] → press [ENTER] on the keyboard.

❑ Press [INSERT] on the keyboard.

❑ Select the print server you set up in step 2 → press [ENTER] on the keyboard.

❑ Press [ESC] on the keyboard repeatedly until you return to the [Available Options] menu.

4 Assign the printer to the print server.

❑ On the [Available Options] menu, select [Print Server Information] → press [ENTER] on the keyboard.

❑ Select the print server you set up in step 2 → press [ENTER] on the keyboard.

❑ Select [Print Server Configuration] → press [ENTER] on the keyboard.

❑ Select [Printer Configuration] → press [ENTER] on the keyboard.

❑ From [Configured Printers], select the number of the printer you want to use → press [ENTER] on the keyboard.

5 Specify the printer name, type, etc.

❑ In [Name], enter the name you want to use for the printer → press [ENTER] on the keyboard.

❑ If you are using the queue server mode, select [Defined elsewhere] from [Type].
If you are using the remote printer mode, select [Remote Parallel, LPT1] from [Type].

❑ Specify the remaining items → press [ESC] on the keyboard.

❑ In the confirmation box that opens, select [Yes] → press [ENTER] on the keyboard.

❑ Press [ESC] on the keyboard to return to the [Print Server Configuration] Menu.

6 Assign a queue to the printer.

❑ Select [Queues Serviced by Printer] → press [ENTER] on the keyboard.

❑ Select the name of the printer you set up in step 5 → press [ENTER] on the keyboard.

❑ Press [INSERT] on the keyboard.

❑ Select the queue you set up in step 3 → press [ENTER] on the keyboard.

7 Press [ESC] on the keyboard repeatedly until you return to the [Exit PCONSOLE] window → select [Yes] to quit PCONSOLE.

8 If you are using the remote printer mode, start the print server.

❑ If you are using a dedicated print server, enter <PSERVER.EXE> → enter the print server name on the print server → press [ENTER] on the keyboard.

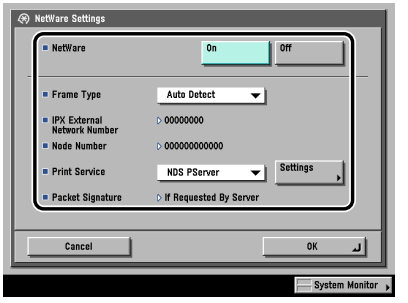
❑ If you are using a NetWare file server as a print server, enter <LOAD PSERVER.NLM (print server name)> on the file server → press [ENTER] on the keyboard.

Protocol Settings

This section describes how to specify the protocol settings for the machine using the control panel. If you are configuring the settings for the first time, use the control panel of the machine.

After configuring the settings, you can change them using software other than the control panel of the machine. For details, see "Network Setting Items," on p. 8-2.

1 On the Network Settings screen, press [NetWare Settings] → specify the following.



<NetWare>: [On]

Select the frame type for your environment from the Frame Type drop-down list. If you select [Auto Detect], the frame type is automatically determined.

Select the print service specified in "NetWare Print Service Settings," on p. 4-3 from the Print Service drop-down list.

The following print services are available:

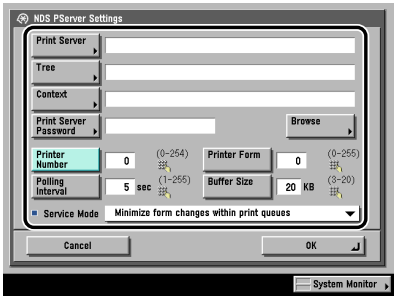
- [Bindery PServer]:
  Used in the queue server mode (Bindery mode print service).
- [RPrinter]:
  Used in the remote printer mode (Bindery mode print service).
- [NDS PServer]:
  Used in the queue server mode (NDS print service).
- [NPrinter]:
  Used in the remote printer mode (NDS print service).

IMPORTANT

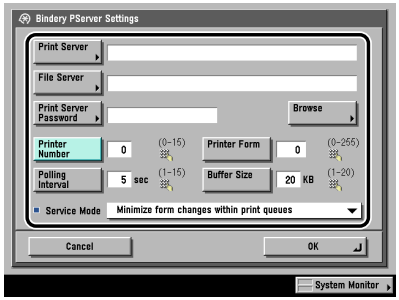
If [NetWare Settings] is not displayed, consult your local authorized Canon dealer.

2 Press [Settings] → specify the print service details.

Screen for setting NDS PServer



Screen for setting Bindery PServer



Specify the same tree, context, file server, and print server names that you specified in "NetWare Print Service Settings," on p. 4-3. (Settings differ depending on the print service. For print service settings, see "Network Setting Items," on p. 8-2.)

You can specify the print service settings either by selecting the desired options from the list on the screen that appears when you press [Browse], or by entering the desired character string for each item.

IMPORTANT

If you want to use [Browse] to specify each item, make sure you press [Browse] after the expiration of the time specified in "Startup Time Settings," on p. 3-42.

● Setting NDS PServer or NPrinter in the Browse screen (If the browse right is not limited to the specific user):

❑ Press [Skip Log In] in the Browse screen.

If the browse right is not limited to the specific user, you can specify the print service without having to log in to NetWare.

❑ Select the tree to which the desired print server belongs → select the context to which the desired print server belongs → select the desired print server.

❑ For NDS PServer, specify each item on the screen for setting NDS PServer if necessary.

● Setting NDS PServer or NPrinter in the Browse screen (If the browse right is limited to the specific user):

❑ In the Browse screen, press the tree to which you want to log in → select the context to which you want to log in.

❑ Press [Log In] → in the Enter Network Password screen, enter the name and password of a user to whom the browse right is granted.

If the browse right is limited to the specific user, it is necessary to log in to NetWare as a user to whom the browse right is granted.

Enter a user name prefixed with 'CN='. If the password is not specified, leave [Password] blank.

❑ Select the tree to which the desired print server belongs → select the context to which the desired print server belongs → select the desired print server.

❑ For NDS PServer, specify each item on the screen for setting NDS PServer if necessary.

● Setting Bindery PServer or RPrinter in the Browse screen:

❑ In the Browse screen, select the file server to which the desired print server belongs.

❑ In the Enter Network Password screen, enter the name and password of a user on the file server.

If the password is not specified, leave [Password] blank.

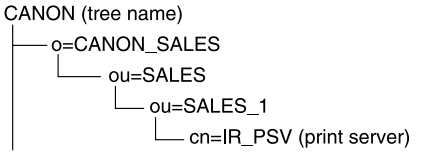
❑ Select the desired print server.

❑ Specify each item on the screen for setting Bindery PServer if necessary.

● Setting NDS PServer or NPrinter using the keyboard on the touch panel display:

❑ In [Tree], enter the name of the tree to which the desired print server belongs → in [Context], enter the name of the context to which the desired print server belongs → in [Print Server], enter the name of the desired print server.

Sample settings:



In an environment like the one above, the tree name and the context name are entered as follows:

Tree: <CANON>

Context: <ou=SALES_1.ou=SALES.o=CANON_SALES>
or <SALES_1.SALES.CANON_SALES>

❑ For NDS PServer, specify each of the other items if necessary.

● **Setting Bindery PServer or RPrinter using the keyboard on the touch panel display:**

❑ In [File Server], enter the name of the file server to which the desired print server belongs → in [Print Server], enter the name of the desired print server.

❑ For Bindery PServer, specify each of the other items if necessary.

Setting Up a Computer for Printing/Sending a Fax

After you have completed specifying the NetWare print service settings and printer protocol settings, you are ready to set up each of the computers for printing or sending a fax.

IMPORTANT

Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.

Connecting to a NetWare Network

In order to use a NetWare network, all computers that will perform printing or sending a fax need to have NetWare client software installed. For details, see your NetWare and operating system manuals.

Printer Connection Method

Install the driver according to the following procedures indicated in the manual for each driver. (The UFR II printer driver is not available for Windows 98/Me.)

- If you want to use the PCL printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
- If you want to use the PS printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
- If you want to use the UFR II printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *UFR II Driver Guide*.
- If you want to use the fax driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

When the dialog box for selecting the port appears during installation, click [Use Network Printer] → [Settings]. From the list, select the print queue that you created in "NetWare Print Service Settings," on p. 4-3.

Setting Up a Computer as a File Server

To send data from the machine to a computer on your network, you need to specify the settings of the computer for receiving data.

This section describes how to set up a computer as a file server.

IMPORTANT

- Optional equipment is required to send data from the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- To send a file to the NetWare server, specify the following NetWare settings for the machine. For instructions on how to specify the protocol settings, see "Protocol Settings," on p. 4-8.
  - <NetWare>: [On]
  - <Frame Type>: Frame type suitable for your environment
- This section describes only the procedures for setting up a computer receiving data sent from the machine. To send data from the machine to a server on the network, you must enter an address setting from the control panel. For instructions on how to specify recipient address settings, see Chapter 2, "Basic Sending Methods," in the *Sending and Facsimile Guide*.
- In some environments, additional detailed settings, such as authority settings, may be required. For details, consult the network administrator of the environment you are using.

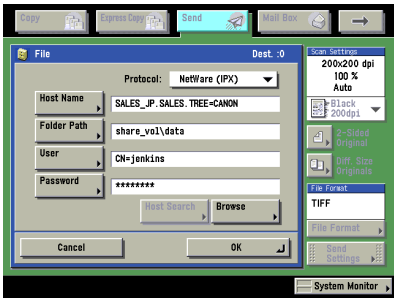
1 Log in to NetWare as Administrator (or as a user of equivalent authority) → set up the users and passwords for sending data from the machine.

Enter a user name, and a password not longer than 24 alphanumeric characters.

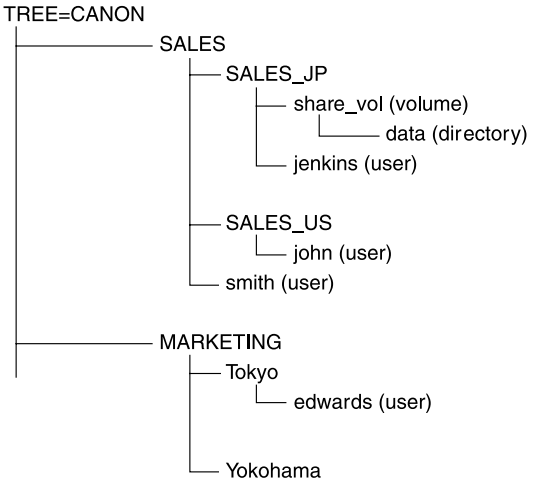
2 Create a directory to be used for recipient addresses, and then enable read access and write access by the users who will be sending data.

3 Set a recipient address from the control panel.

There are two methods for specifying the recipient address; selecting the desired address from the list that appears when you press [Browse], or entering the address using the keyboard on the touch panel display.



Sample recipient settings: NDS Mode Example



If you send data to the "data" directory under "share_vol" in the above tree structure, the settings of the host name and the folder path differ depending on the location of a user account.

- Example 1 If "SALES_JP" contains the user account "jenkins"

  [Host Name]: SALES_JP.SALES.TREE=CANON

  [Folder Path]: share_vol\data

  [User]: CN=jenkins

  [Password]: (Password for the above user)

- Example 2 If "SALES_US" contains the user account "john"

  [Host Name]: SALES_US.SALES.TREE=CANON

  [Folder Path]: share_vol.SALES_JP.\data (One dot is required before \data.)

  [User]: CN=john

  [Password]: (Password for the above user)

- Example 3 If "SALES" contains the user account "smith"

  [Host Name]: SALES.TREE=CANON

  [Folder Path]: share_vol.SALES_JP\data

  [User]: CN=smith

  [Password]: (Password for the above user)

- Example 4 If "Tokyo" contains the user account "edwards"

  [Host Name]: Tokyo.MARKETING.TREE=CANON

  [Folder Path]: share_vol.SALES_JP.SALES..\data
  (Two dots are required before \data.)

  [User]: CN=edwards

  [Password]: (Password for the above user)

Sample recipient settings: Bindery Mode Example:

- Server side settings:

  [File Server Name]: TOPMAX_SERVER

  Set \CSG in the SYS volume as the recipient.

- The machine's address settings:

  <Protocol>: NetWare (IPX)

  [Host Name]: TOPMAX_SERVER

  [Folder Path]: SYS\CFG

  [User]: (User name entered in step 1)

  [Password]: (Password for the above user)

IMPORTANT

- If you want to use [Browse] to specify each item, make sure you press [Browse] after the expiration of the time specified in "Startup Time Settings," on p. 3-42.
- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you change the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly, or you may not be able to browse the directories.
- In NDS mode, note the following:
  - For the host name, specify the context by which a user logs in.
  - For the folder path, specify the relative path from the user context. You may omit the "xx=" portion, but the ".TREE=" portion with the tree name may not be omitted.
  - Enter a user name prefixed with "CN=."
  - Unless the same directory tree contains the user account name by which a user logs in and the volume object to which data is sent, dots are required according to the layer of the relative path. For example, one dot is required to indicate the layer one level above (Example 2), and two dots are required to indicate the layer two levels above (Example 4).

Using a NetBIOS Network

5
CHAPTER

This chapter describes settings and procedures for using the machine with a NetBIOS network.

NetBIOS Network Setup Procedures 5-2

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TCP/IP Settings (IPv4) 5-3

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Connecting to a NetBIOS Network and Configuring a Shared Folder 5-12

NetBIOS Network Setup Procedures

To use a NetBIOS network, it is necessary to perform the following procedures.

1 Protocol Settings (See "Protocol Settings," on p. 5-3.)

Specify the protocol settings. To specify the settings, use:

- The machine's control panel
- The Remote UI (via a web browser)

2 Computer Settings for Printing/Sending a Fax (See "Setting Up a Computer for Printing/Sending a Fax," on p. 5-6.)

Specify the settings of each computer you use for printing or sending a fax. (Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

3 Computer Settings for a File Server (See "Setting Up a Computer as a File Server," on p. 5-11.)

Specify the settings of the computer receiving data sent from the machine. (Optional equipment is required to send data from the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.)

IMPORTANT

- If you are using the optional imagePASS, for steps 1 and 2, see the manual provided with the optional imagePASS, not this guide.
- It is recommended that steps 1 and 3 above be performed by the network administrator.
- The only base protocol supported by the machine for NetBIOS networks is TCP/IPv4. TCP/IPv6 and NetBEUI are not supported (SMB is used as a print application).

Protocol Settings

This section describes how to specify the protocol settings for the machine using the control panel. If you are configuring the settings for the first time, use the control panel of the machine.

After configuring the settings, you can change them using software other than the control panel of the machine. For details, see "Network Setting Items," on p. 8-2.

TCP/IP Settings (IPv4)

1 Specify the TCP/IPv4 settings.

If you have not entered the TCP/IPv4 settings yet, enter them now. (For more information, see "TCP/IP Settings (IPv4)," on p. 3-3.)

IMPORTANT

IPv6 is not supported.

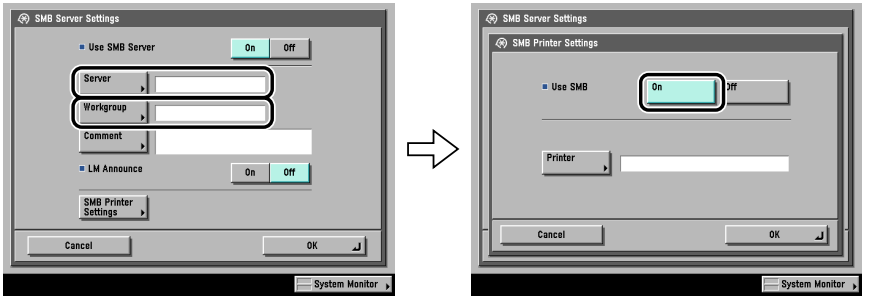
SMB and WINS Settings

To use the machine on a NetBIOS network, specify the SMB settings. To resolve a name with WINS, specify the WINS settings using the following procedure.

To specify the SMB settings, you need to use the optional UFR II/PCL/PS Printer Kit, the optional Super G3 FAX Board, or the optional Universal Send Kit.

WINS (Windows Internet Name Service) is a service for associating a NetBIOS name (which is a computer name or printer name on a NetBIOS network) with an IP address. To use WINS, specify the IP address settings for the WINS server.

1 On the Network Settings screen, press [SMB Server Settings] → specify the following.



[On] for <Use SMB Server>: You can use the SMB server.

In [Server], enter the name of a computer that the machine connects to, using the keyboard on the touch panel display. Be sure to enter a unique name that does not exist as a name for another computer or printer on the same network.

In [Workgroup], enter the name of the workgroup the machine belongs to, using the keyboard on the touch panel display.
If there is no workgroup on your environment, create a workgroup in the Windows environment, and then enter the workgroup name.

In [Comment], enter a comment about the printer, if necessary. If you display the printer information, the comment you specified here appears.

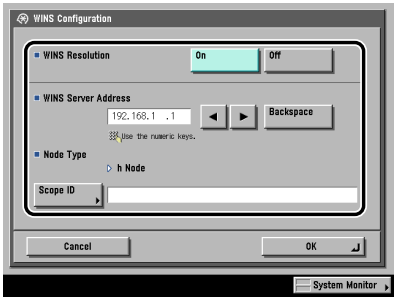
If you want the machine to notify the LAN Manager of its existence on the network, press [On] for <LM Announce>. If the LAN Manager does not have to refer to the machine, you can control the traffic over your network by selecting [Off].

To set up an SMB printer, press [SMB Printer Settings] → [On] for <Use SMB> → enter the printer name of the machine in [Printer].

IMPORTANT

- You cannot enter the domain name as the workgroup name.
- You cannot enter a character string that includes blanks in [Server] and [Workgroup].
- Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- You cannot enter a character string including blanks in [Printer].

2 On the TCP/IP Settings screen, press [WINS Configuration] → specify the following.



[On] for <WINS Resolution>: You can resolve the name with WINS. Enter the IPv4 address of a WINS server in [WINS Server Address].

Enter the [Scope ID] settings if a scope ID is set on the computer in the network environment you are using. The scope ID is an identifier for determining the range available to a printer or computer. The scope ID set here is used regardless of the setting for <WINS Resolution>.

IMPORTANT

- If DHCP determines the IPv4 address, the IPv4 address obtained from a DHCP server is overwritten with the IPv4 address of a WINS server (obtained from the DHCP server), whenever possible.
- If you set a scope ID, the machine cannot communicate with any computer whose scope ID is different from the scope ID you set here.
- If a scope ID is not set on any of the computers in your network environment, leave [Scope ID] blank.

Setting Up a Computer for Printing/Sending a Fax

After you have completed the protocol settings, you are ready to set up each of the computers for printing or sending a fax.

IMPORTANT

Optional equipment is required to print or send a fax from a computer. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.

Connecting to a TCP/IP Network

All computers that use the machine for printing or sending a fax must have TCP/IP client software installed and must be enabled for TCP/IP network use. For details, see the manuals provided with your operating system.

Connecting to a NetBIOS Network

All computers that use the machine for printing or sending a fax must be enabled for NetBIOS network use.
The setup procedures differ depending on your operating system.
See the procedures below to set the computers.

- Windows 98/Me: See "Windows 98/Me," on p. 5-7.
- Windows 2000/XP/Server 2003/Vista: See "Windows 2000/XP/Server 2003/Vista," on p. 5-8.
- Mac OS X 10.3 or later: See the documentation provided with your Macintosh.

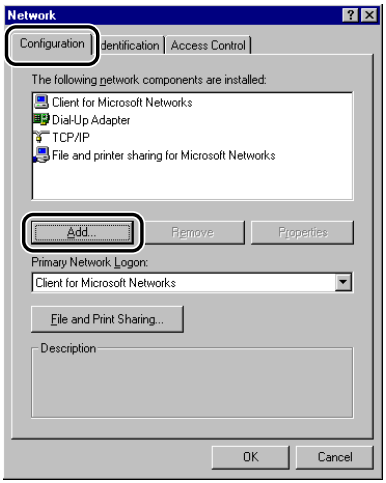
IMPORTANT

The following procedures describe a sample NetBIOS setup. Depending on your environment, the actual setup procedure may differ.

Windows 98/Me

The following is the procedure for specifying a NetBIOS network with Windows 98/Me.

1 **In the [Network] dialog box, on the [Configuration] sheet, if both [Client for Microsoft Networks] and [File and printer sharing for Microsoft Networks] do not appear, click [Add] → follow the instructions on the screen to install these components.**



2 **Select [TCP/IP] → click [Properties] to open the [TCP/IP Properties] dialog box.**

3 **On the [Bindings] sheet, click [Client for Microsoft Networks].**

4 **Restart the computer if prompted.**

Windows 2000/XP/Server 2003/Vista

The following is the procedure for specifying a NetBIOS network with Windows 2000/XP/Server 2003/Vista.

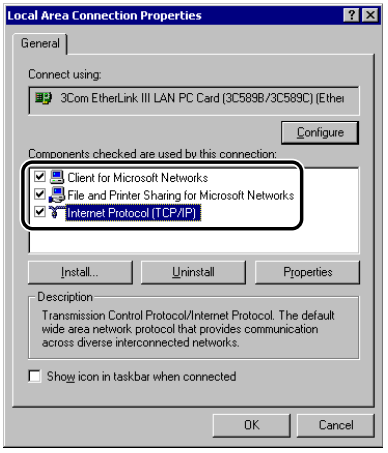
In the following procedures, items displayed on the screens for Windows 2000 are used. The items displayed may differ according to your operating system.

NOTE

If you are using Windows Vista, a dialog box may be displayed while you are performing the procedure. In this case, enter a user name and password. For more information, see the manuals provided with the operating system.

---

1 **In the [Local Area Connection Properties] dialog box, select [Client for Microsoft Networks] and [Internet Protocol (TCP/IP)].**



2 **Double-click [Internet Protocol (TCP/IP)] to open the [Internet Protocol (TCP/IP) Properties] dialog box.**

3 **On the [General] sheet, click [Advanced] → on the [WINS] sheet, select [Enable NetBIOS over TCP/IP].**

4 **Restart the computer if prompted.**

Windows

If Windows 2000/XP/Server 2003/Vista is on your network, the following procedure enables you to set up a print server for more efficient management of network printers. Once a print server is set up, print jobs can be managed by the print server. Also, by setting up an alternate driver for the print server, printer drivers can be installed in each computer via the network.
For instructions on how to set print servers, see the following procedures indicated in the manual for each driver. (Since the UFR II printer driver is not supported by Windows 98/Me, it cannot be used as an alternative driver.)

- If you want to use the PCL printer driver
  See the procedure for alternative printer driver installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
- If you want to use the PS printer driver
  See the procedure for alternative printer driver installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
- If you want to use the fax driver
  See the procedure for alternative fax driver installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

NOTE

If you are using Windows Vista, a dialog box may be displayed while you are performing the procedure. In this case, enter a user name and password. For more information, see the manuals provided with the operating system.

1 Check the settings for both <RX/Print Range> and <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 Settings screen, to see whether the IPv4 address of the computer in which a driver is to be installed is permitted. See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3.

IMPORTANT

- If the settings for both <RX/Print Range> and <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 Settings screen do not permit the IPv4 address, you cannot install a driver.
- If the IPv4 address of the computer is beyond the range of the permitted addresses set for <RX/Print Range> after installing a driver, you cannot print or send a fax from the computer.

2 Install the driver.

Install the driver according to the following procedures indicated in the manual for each driver. (The UFR II printer driver is not available for Windows 98/Me.)

- If you want to use the PCL printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *PCL Driver Guide*.
- If you want to use the PS printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *PS Driver Guide*.
- If you want to use the UFR II printer driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *UFR II Driver Guide*.
- If you want to use the fax driver
  See the procedure for standard installation in Chapter 2, "Getting Started," in the *Fax Driver Guide*.

When the dialog box for selecting the port appears during installation, click [Use Network Printer] → [Settings]. From the list, select [Workgroup], [Server], and [Printer] you set in "SMB and WINS Settings," on p. 5-3.

Mac OS X 10.3 or later

If you are using the optional UFR II/PCL/PS Printer Kit, and a PS printer driver provided by Apple Inc., you can use SMB as the print application. After installing the PPD file according to the *Network Quick Start Guide*, specify the print settings according to the instructions in the documentation provided with your Macintosh.

Setting Up a Computer as a File Server

To send data from the machine to a computer on your network, you need to specify the settings of the computer for receiving data. You can send data over a NetBIOS network to a Windows or Samba (UNIX/Linux) shared folder. This section describes how to configure a shared folder.

IMPORTANT

- Optional equipment is required to send data from the machine. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- Samba 2.2.8a or later is supported.
- This section describes only the procedures for setting up a computer receiving data sent from the machine. To send data from the machine to a server on the network, you must enter an address setting from the control panel. For instructions on how to specify recipient address settings, see Chapter 2, "Basic Sending Methods," in the *Sending and Facsimile Guide*.
- The following procedures describe a sample shared folder configuration. Depending on your environment, the actual configuration procedure may differ.

Connecting to a TCP/IP Network

A computer that receives data sent from the machine must have TCP/IP client software installed and must be enabled for TCP/IP network use. For details, see the manuals provided with your operating system.

You can send data over a TCP/IP network from the machine to an FTP server. For instructions on how to set up an FTP server, see "Setting Up a Computer as a File Server," on p. 3-57.

Windows 98/Me

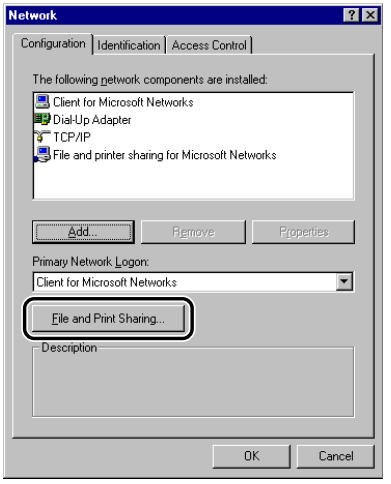
If a suitable Windows 2000/XP/Server 2003/Vista machine is available on your network, it is recommended that you configure that machine as a file server instead of using a Windows 98/Me machine.

In the following procedures, items displayed on the screens for Windows 98 are used; items might differ depending on your operating system.

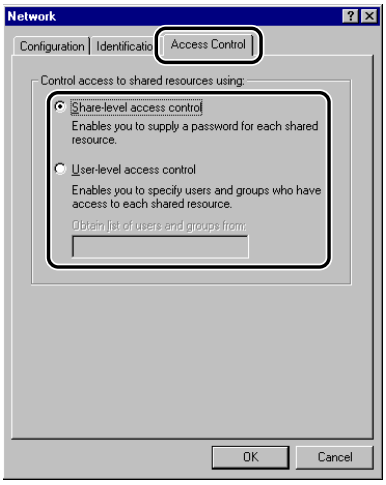
---

1 **In the [Network] dialog box, on the [Configuration] sheet, if both [Client for Microsoft Networks] and [File and printer sharing for Microsoft Networks] do not appear, click [Add] to install these components.**

2 **Click [File and Print Sharing] → click [I want to be able to give others access to my files].**

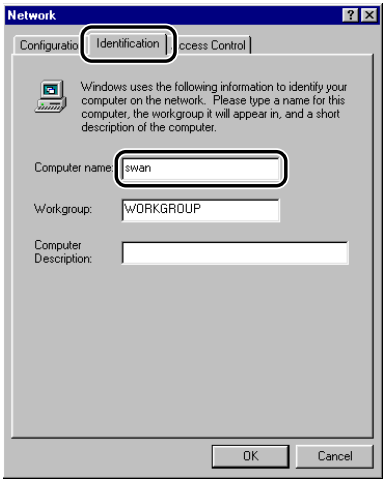


3 On the [Access Control] sheet, select the level of access control.

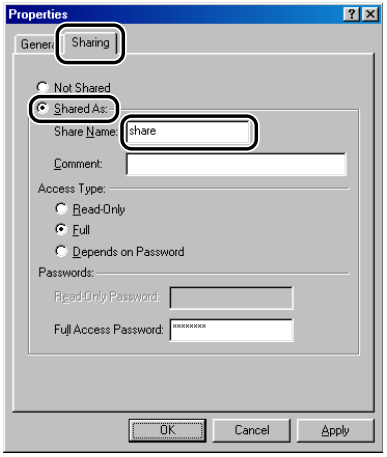

Network
Configuration
Identificatio
Access Control
Control access to shared resources using:
Share-level access control
Enables you to supply a password for each shared resource.
User-level access control
Enables you to specify users and groups who have access to each shared resource.
Obtain list of users and groups from:
OK
Cancel

If you select [User-level access control], specify a domain in which a list of users and groups is saved.

4 On the [Identification] sheet, confirm the computer name.



5 Open the properties dialog box of the folder you want to share → on the [Sharing] sheet, click [Share As] → enter the share name in [Share Name].



If [Share-level access control] is selected in step 3 for [Access Type], select either [Full] or [Depends on Password] → enter a password not longer than 14 alphanumeric characters. If [Depends on Password] is selected, enter a password for full access.

If [User-level access control] is selected in step 3, click [Add] to display the [Add Users] dialog box. From the left list select the users to whom you want to give access to the shared folder → add them to the right list.

6 Set a recipient address using the machine's control panel.

There are three methods for specifying the recipient address; selecting the desired address from the list that appears when you press [Browse], searching for the address by pressing [Host Search], or entering the address using the keyboard on the touch panel display.

Sample recipient setting:

- Server side settings (set and confirmed in the above step.):

  [Computer name]: swan

  [Share Name]: share

  Create a folder called 'Images' within share, and then specify Images as the recipient for sending.

- The machine's recipient settings:

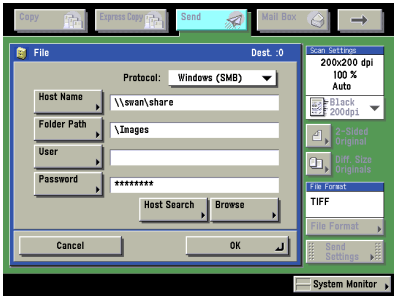
  <Protocol>: Windows (SMB)

  [Host Name]: \\swan\share (Shared folder path)

  [Folder Path]: \Images

  [User]: (Not required if you have selected [Share-level access control] in step 3)

  [Password]: Password entered in the above step.



IMPORTANT

- If you want to use [Browse] to specify each item, make sure you press [Browse] after the expiration of the time specified in "Startup Time Settings," on p. 3-42.
- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Up to 255 alphanumeric characters can be entered for [Folder Path], and up to 20 alphanumeric characters can be entered for [User].
- If you change the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly, or you may not be able to browse the directories.
- If the language of the touch panel display differs from the computer used as a master browser, [Host Name] and [Folder Path] may not be displayed correctly, or you may not be able to browse the directories.

NOTE

- You can send data using the following formats. A DNS server is required for the latter case:
  \\192.168.2.100\share
  \\host_name.organization.company.com\share
- You can also specify the user name in the address using the following format: domain_name\user_name (up to 15 alphanumeric characters for the domain name, and up to 20 for the user name)

Windows 2000/XP/Server 2003/Vista

It is recommended that the file server be configured by the network administrator.

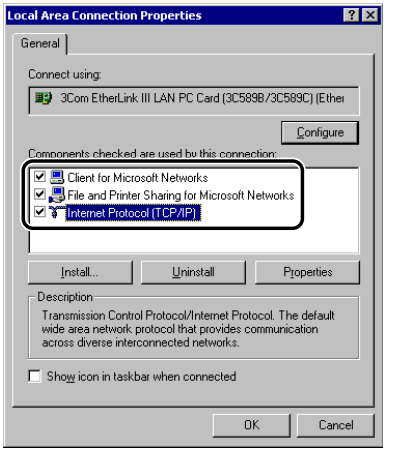
The number of users or clients that can access a server running Windows 2000/XP/Server 2003/Vista is limited. After this number of users or clients is reached, it is not possible to send to a server running Windows 2000/XP/Server 2003/Vista.

In the following procedures, items displayed on the screens for Windows 2000 are used. The items displayed may differ according to your operating system.

NOTE

If you are using Windows Vista, a dialog box may be displayed while you are performing the procedure. In this case, enter a user name and password. For more information, see the manuals provided with the operating system.

1 Log on to Windows as an Administrator → in the [Local Area Connection Properties] dialog box, select all [Client for Microsoft Networks], [File and Printer Sharing for Microsoft Networks], and [Internet Protocol (TCP/IP)].

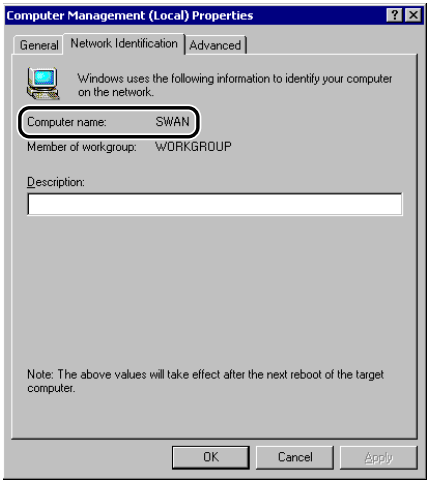


2 Double-click [Internet Protocol (TCP/IP)] to open the [Internet Protocol (TCP/IP) Properties] dialog box.

3 On the [General] sheet, click [Advanced] → on the [WINS] sheet, click [Enable NetBIOS over TCP/IP].

4 Restart the computer if prompted.

5 Confirm the computer name.

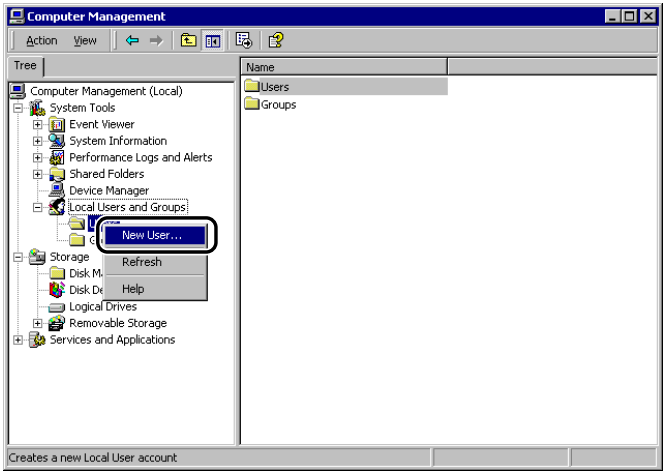


If you are using Windows 2000, right-click the [My Computer] icon → click [Manage] to open the [Computer Management] window. Right-click the [Computer Management (Local)] icon → click [Properties] to open the [Computer Management (Local) Properties] dialog box. On the [Network Identification] sheet, confirm the [Computer name] setting.

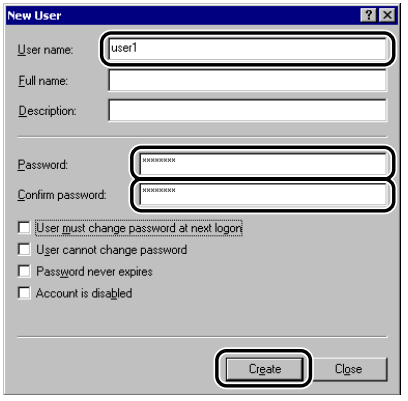
If you are using Windows XP/Server 2003, right-click [My Computer] → click [Properties] → on the [Computer Name] sheet, click [Change]. In the [Computer Name Changes] dialog box, click [More] to open the [DNS Suffix and NetBIOS Computer Name] dialog box → confirm [NetBIOS computer name].

If you are using Windows Vista, perform the same operation as with other operating systems to open the [DNS Suffix and NetBIOS Computer Name] dialog box → confirm the name in [NetBIOS computer name].

6 **Right-click the [My Computer] icon → click [Manage] to open the [Computer Management] window → under [System Tools], in [Local Users and Groups], from the [Users] folder, click [New User].**



7 **In the [New User] dialog box, enter the user name in [User name] → enter the password in [Password] → re-enter the password in [Confirm Password] → click [Create].**



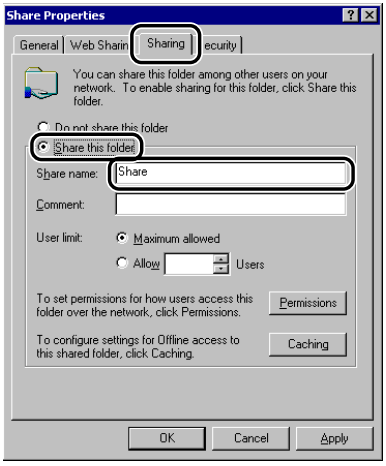
Enter a user name not longer than 20 alphanumeric characters, and a password not longer than 14 alphanumeric characters.

If [User must change password at next logon] is selected, any new users added must change their passwords in order to send data from the machine. (You cannot change the password from the control panel.)

NOTE

In an Active Directory environment, the procedures for setting up users differ from the above. For details, see the Windows manual.

8 Open the properties dialog box of the folder you want to share → on the [Sharing] sheet, click [Share this folder] → enter the share name in [Share name].

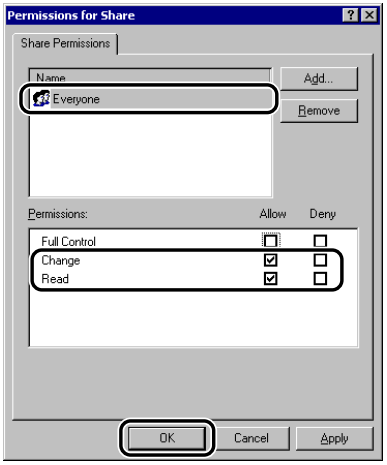


9 Set permissions.

- **To create a shared folder on a FAT or FAT32 format disk (If the [Security] tab is not displayed):**

❑ Click [Permissions] to display the dialog box.

Select or add the users or groups to whom you want to give access to the shared folder → under [Permissions], select both [Change] and [Read].



● **To create a shared folder on an NTFS format disk:**

❑ Display the [Security] sheet.

❑ Select or add the users or groups to whom you want to give access to the shared folder → under [Permissions], select both [Write] and [Read & Execute], or a higher access authority. For data in the folder, check both [Write] and [Read], or a higher access authority.

NOTE

- To display the [Security] tab in Windows XP, open Folder Options → deselect [Use simple file sharing]. However, you can share folders and files with [Use simple file sharing] selected. Select or deselect [Use simple file sharing] to suit your environment. For more information, see the manual provided with Windows XP.
- In the Active Directory environment, the procedures for specifying the security settings of the shared folder differ from above. For more information, see the Windows manual.

10 Set a recipient address using the control panel.

There are three methods for specifying the recipient address; selecting the desired address from the list that appears when you press [Browse], searching for the address by pressing [Host Search], or entering the address using the keyboard on the touch panel display.

Sample recipient setting:

- Server side settings (set and confirmed in the above step.):

  [Computer name]: swan

  [Share Name]: share

  Create a folder called 'Images' within share, and then specify Images as the recipient for sending.

- The machine's Recipient Settings:

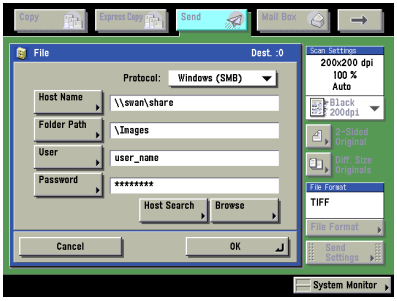
  <Protocol>: Windows (SMB)

  [Host Name]: \\swan\share (Shared folder path)

  [Folder Path]: \Images

  [User]: User name entered in the above step.

  [Password]: Password for the above user.



IMPORTANT

- If you want to use [Browse] to specify each item, make sure you press [Browse] after the expiration of the time specified in "Startup Time Settings," on p. 3-42.
- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you change the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly, or you may not be able to browse the directories.
- If the language of the touch panel display differs from the computer used as a master browser, [Host Name] and [Folder Path] may not be displayed correctly, or you may not be able to browse the directories.

NOTE

- You can send data using the following formats. A DNS server is required for the latter case:
  \\192.168.2.100\share
  \\host_name.organization.company.com\share
- You can also specify the user name in the address using the following formats:
  - domain_name\user_name (up to 15 alphanumeric characters for the domain name, and up to 20 for the user name)
  - user_name@organization.company.com (up to 128 characters in total)
    Note that the latter is only applicable when sending to a Windows 2000/XP/Server 2003/Vista computer that belongs to a domain containing Windows 2000/Server 2003/Vista domain controllers.

Samba (UNIX/Linux)

Samba 2.2.8a or later is supported.

In some environments, detailed settings may be required in order to use the Samba. For details, consult your network administrator.

1 Log in to a workstation as a superuser → set up the users who access the Samba shared folder, and their passwords.

Set a user name not longer than 20 alphanumeric characters, and a password not longer than 14 alphanumeric characters.

2 Set a recipient address using the control panel.

There are three methods for specifying the recipient address; selecting the desired address from the list that appears when you press [Browse], searching for the address by pressing [Host Search], or entering the address using the keyboard on the touch panel display.

Sample recipient setting:

- Server side settings:

  [Computer name]: swan

  [Share Name]: share

  Create a folder called 'Images' within share, and then specify Images as the recipient for sending.

- The machine's recipient settings:

  <Protocol>: Windows (SMB)

  [Host Name]: \\swan\share (Shared folder path)

  [Folder Path]: \Images

  [User]: User name entered in the above step.

  [Password]: Password for the above user.

For a sample screen, see the example of Windows 2000/XP/Server 2003/Vista screen (see p. 5-21).

IMPORTANT

- If you use [Browse] to specify each item, press [Browse] after the expiration of the time specified in "Startup Time Settings," on p. 3-42.
- Up to 128 alphanumeric characters can be entered for [Host Name] on the control panel. Also, up to 255 alphanumeric characters can be entered for [Folder Path].
- If you change the language of the touch panel display, [Host Name] and [Folder Path] may not be displayed correctly, or you may not be able to browse the directories.
- If the language of the touch panel display differs from the computer used as a master browser, [Host name] and [Folder path] may not be displayed correctly, or you may not be able to browse the directories.

NOTE

- You can send data using the following formats. A DNS server is required for the latter case.
  \\192.168.2.100\share
  \\host_name.organization.company.com\share
- You can also specify the user name in the address using the following format.
  - domain_name\user_name (up to 15 alphanumeric characters for the domain name, and up to 20 for the user name)

Using an AppleTalk Network (Macintosh)

6
CHAPTER

This chapter describes settings and procedures for printing via an AppleTalk network.

AppleTalk Network Setup Procedures 6-2

Protocol Settings. 6-3

Setting Up a Computer for Printing. 6-4

AppleTalk Network Setup Procedures

To print via an AppleTalk network, it is necessary to perform the following procedures.

1 Macintosh Network Settings

To specify AppleTalk network settings, enable AppleTalk according to the instructions in the documentation provided with your Macintosh.

2 Protocol Settings (See "Protocol Settings," on p. 6-3.)

Specify the protocol settings. To specify the settings, use:

- The machine's control panel
- The Remote UI (via a web browser)
- Canon utilities (NetSpot Device Installer, etc.)

3 Macintosh Print Settings (See "Setting Up a Computer for Printing," on p. 6-4.)

Specify the settings for each computer you use for printing.

IMPORTANT

- If you are using the optional imagePASS, see the manual provided with the optional imagePASS for more information on the settings (other than for e-mail/I-fax settings).
- You can specify the AppleTalk protocol settings if you are using the optional UFR II/PCL/PS Printer Kit.
- You need to use optional equipment to print via an AppleTalk network. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.
- It is recommended that the network administrator perform step 2.

Protocol Settings

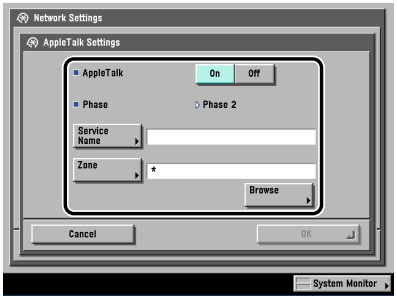
This section describes how to specify the protocol settings for the machine using the control panel. If you are configuring the settings for the first time, use the control panel of the machine.

After configuring the settings, you can change them using software other than the control panel of the machine. For details, see "Network Setting Items," on p. 8-2.

IMPORTANT

You need to use optional equipment to print via an AppleTalk network. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.

1 On the Network Settings screen, press [AppleTalk Settings] → specify the following.



[On] for <AppleTalk>: You can use the AppleTalk network.

In [Service Name], enter a name for the printer not longer than 32 characters. The name you enter here appears on the Macintosh screen.

If you are using a network that is set up in zones, enter the name of the zone in [Zone].

IMPORTANT

- If there is more than one printer in the same zone, each printer must have a unique name.
- You can also enter a zone name by pressing [Browse] and selecting the appropriate name from the displayed list.

Setting Up a Computer for Printing

After you have completed the machine protocol settings, install the printer driver on the Macintosh that will do the printing, and then make the settings for the print destination.

Specify the following settings according to the instructions in the manual for each driver.

IMPORTANT

You need to use optional equipment to print via an AppleTalk network. For the equipment needed, see "Optional Equipment and System Requirements," on p. 1-2.

■ If you want to use the UFR II printer driver

1. Installation of the UFR II printer driver
   See the *Mac UFR II Driver Guide*.
2. Print settings
   Set the machine as the print destination.

■ If you want to use a PS printer driver provided by Apple Inc. with the Mac OS

1. Installation of the PPD file
   See the *Network Quick Start Guide*.
2. Print settings
   Set the machine as the print destination.
3. Selection of the printer name
   Select either of the following names displayed in the Macintosh screen. ('xxx' indicates the name of the printer entered in [Service Name].)
   - [xxx_D]: the print job is printed without spooling to the hard disk of the machine.
   - [xxx_S]: the print job is printed after it has been spooled to the hard disk of the machine.

Troubleshooting

CHAPTER 7

This chapter describes how to resolve printing problems.

Network Connection Problems and Remedies 7-2

Printing Problems and Remedies 7-4

Data Sending/File Sharing Problems and Remedies 7-10

Encrypted SSL Data Communication Problems and Remedies 7-16

Network Connection Problems and Remedies

This section describes the causes of network connection problems, and how to resolve them.

Unable to Set up a Network

Cause [Change Settings/Display Connection Confirm.] is set to 'Off'.

Remedy Set [Change Settings/Display Connection Confirm.] to 'On'.

<Check the network connection.> is displayed on the control panel.

Cause 1 The machine and cable are not properly connected.

Remedy Turn OFF the machine's power switches, check that the machine is connected to the network using the proper cable, and then turn them ON. (See "Connecting the Machine to a Computer or Network," on p. 2-3.)

Cause 2 [Change Settings/Display Connection Confirm.] is set to 'On', although the machine is not connected to a network.

Remedy Set [Change Settings/Display Connection Confirm.] to 'Off'.

The machine automatically connects to a destination other than the intended destination via its dial-up access (when a dial-up router is connected to your network).

Cause The machine periodically or temporarily communicates with devices on your network. If a dial-up router or NetWare file server is on the network to which the machine is connected, the machine connects to a destination other than the intended destination, depending on the settings of the machine or dial-up router. This may result in subscriber line charges and call charges.
Examples:

- The file or mail server's host name or IP address set on the machine does not exist on the network.
- The DNS server exists on an external network.
- You attempt to access a device connected to an external network, if the device's information is set on the DNS server on the network to which the machine is connected.

Remedy Check the following:

- If the dial-up router does not have to send packets via broadcast, change the router settings to ensure that it sends packets via a method other than broadcast. If dial-up router has to send packets via broadcast, check that the settings are correct.
- Check that the file or mail server's host name or IP address set on the machine is correct.
- If you attempt to access a device on the network to which the machine is connected, with the DNS server on an external network, set the destination using an IP address, not a host name.
- If information about a device on an external network is set on the DNS server on the network to which the machine is connected, check the settings.

Detailed information concerning the machine cannot be set or browsed using the Remote UI or utility.

Cause 1 The IP addresses of computers on which the Remote UI or utility is used are not allowed in <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen.

Remedy If the settings for <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen do not permit the IP address of a computer on which the Remote UI or utility is used, you cannot specify machine setting items or browse information on the machine.
Check the settings for <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen. (See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.)

Cause 2 <Use SNMP v. 1> or [Enable Dedicated Port Settings] (for IPv4 only) is set to 'Off'.

Remedy Set <Use SNMP v. 1> and [Enable Dedicated Port Settings] (for IPv4 only) to 'On'. (See "Communication Environment Setup," on p. 2-11.)

Cause 3 The SNMP community name does not match.

Remedy If you use an SNMP community name different from the one stored in the machine to access the machine from a utility, the utility will not detect the machine. In this case, check the SNMP community name. (See "Communication Environment Setup," on p. 2-11.)

Cause 4 Invalid cache data is remaining.

Remedy If the Remote UI does not start properly and an error message is displayed on your Web browser, delete the cache files.

Printing Problems and Remedies

This section describes how to resolve basic printing problems.

Unable to Install a Driver (TCP/IP Network)

Cause The IP address of the computer in which a driver is to be installed is not permitted by the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen.

Remedy If you want to use TCP/IP for printing and the IP address of the computer in which a driver is to be installed is not permitted by the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen, the driver cannot be installed successfully. Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen. (See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.)

Unable to Install a Driver (NetBIOS Network)

Cause The IPv4 address of the computer in which a driver is to be installed is not permitted by the settings for both <RX/Print Range> and <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 Settings screen.

Remedy If you are using a NetBIOS network and the IPv4 address of the computer in which a driver is to be installed is not permitted by the settings for both <RX/Print Range> and <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 Settings screen, the driver cannot be installed successfully. Check the settings for both <RX/Print Range> and <Setting/Browsing Range> in [IP Address Range Settings] on the IPv4 Settings screen. (See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3.)

Unable to Print from a TCP/IP Network

Cause 1 The machine and cable are not properly connected.

Remedy Turn OFF the machine's power switches, check that the machine is connected to the network using the proper cable, and then turn them ON. (See "Connecting the Machine to a Computer or Network," on p. 2-3.)

Cause 2 TCP/IP network is not properly set up.

Remedy Check the following:

- Confirm that the IPv4 addresses are properly set up. If the IPv4 addresses were set using DHCP, BOOTP, or RARP, confirm that they are operating.
- Confirm that the IPv6 addresses are properly set up. After checking the settings of the router, set <Use Stateless Address> to 'On' to confirm whether you can obtain an address. If the IPv6 addresses were set using DHCPv6, confirm that DHCPv6 is operating.

NOTE

Your computer may not be able to recognize the machine even though the IP address settings are appropriate. This problem may be resolved by delaying the startup of network communications for the machine. (See "Startup Time Settings," on p. 3-42.)

Cause 3 The computer that is printing is not properly set up. (Windows)

Remedy Check the following:

- Confirm that the proper printer driver is installed. If you are printing from Windows, each computer must have a printer driver installed. For instructions on how to install printer drivers, see the *Driver Guide*.
- Confirm that the correct printer is set as the output destination for the computer that is printing. Check the output destination in [Printer] in [Control Panel].
- If you are using LPD with Windows 98/Me, follow the procedures below to confirm the spool settings: On the [Start] menu, point to [Settings] → click [Printers]. Right-click the printer icon you are using → on the pop-up menu, click [Properties]. Click the [Details] tab to display the [Details] sheet. Click [Spool Settings] to open the [Spool Settings] dialog box. Confirm that [Spool print jobs so program finishes printing faster] is selected. If it is not selected, select it → click [OK].

Cause 4 The computer that is printing is not properly set up. (Macintosh)

Remedy Check the following Macintosh settings:

- Confirm that the proper printer driver is installed.
- Confirm that the proper printer has been selected as the destination.
- Confirm that [AppleTalk] is active.
- Confirm that the AppleTalk connection method is EtherTalk or Ethernet.

Cause 5 The name of the file being printed is too long.

Remedy Normally LPR sends jobs either under the name of the application software used for printing or under the file name. However, a job name longer than 255 characters cannot be sent to the printer. To correct this problem, rename the file with a shorter name.

Cause 6 The IP address of the computer from which data (print/fax/I-fax job) is to be sent to the machine is not permitted by the settings for <RX/Print Rang> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen.

Remedy Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 or IPv6 Settings screen. (See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.)

Cause 7 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

Unable to Print from a NetWare Network

Cause 1 The machine and cable are not properly connected.

Remedy Turn OFF the machine's power switches, check that the machine is connected to the network using the proper cable, and then turn them ON. (See "Connecting the Machine to a Computer or Network," on p. 2-3.)

Cause 2 The NetWare network is not properly set up.

Remedy Check the following:

- Confirm that the NetWare file server is running.
- Confirm that there is sufficient disk space on the NetWare file server. Large files cannot be printed if there is insufficient disk space.
- Start NWADMIN or PCONSOLE, and then confirm that the print queue is set up properly and is active.
- Confirm that the network settings of the machine are correctly set. (See "Protocol Settings," on p. 4-8.) Check the following in particular:
  - A valid frame type is selected from the Frame Type drop-down list.
  - [Print Server] and [Printer Number] are correctly specified.

NOTE

Your computer may not be able to recognize the machine, even though the IP address settings are appropriate. This problem may be resolved by delaying the startup of network communications for the machine. (See "Startup Time Settings," on p. 3-42.)

Cause 3 The computer that is printing is not properly set up.

Remedy Check the following:

- Confirm that the proper printer driver is installed. If you are printing from Windows, each computer must have a printer driver installed.
- For instructions on how to install printer drivers, see the *Driver Guide*.

- Confirm that the correct printer is set as the output destination for the computer that is printing. Confirm the output destination in [Printer] in [Control Panel].

Cause 4 If you are using an NDS PServer or Bindery PServer and the print server has a password setting, the machine's password setting is incorrect.

Remedy Perform the following steps to correct the machine's password setting:

- Confirm the password in the NetWare print server for printing on the machine.
- Press (Additional Functions) → [System Settings] → [Network Settings] → [NetWare Settings] to open the NetWare Settings screen.
- Press [Settings] → enter a valid password in [Print Server Password]. (The setting becomes effective when the machine is restarted.)

Cause 5 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

Unable to Print from a NetBIOS Network (Windows)

Cause 1 The machine and cable are not properly connected.

Remedy Turn OFF the machine's power switches, check that the machine is connected to the network using the proper cable, and then turn them ON. (See "Connecting the Machine to a Computer or Network," on p. 2-3.)

Cause 2 TCP/IP network is not properly set up.

Remedy On the assumption that the TCP/IP is working correctly if you print using NetBIOS network, check the following:

- Confirm that the IPv4 addresses are properly set up. If the IPv4 addresses were set using DHCP, BOOTP, or RARP, confirm that they are operating.
- If you are using a DHCP server, confirm that the WINS server is working correctly with the DHCP server.

NOTE

Your computer may not be able to recognize the machine even though the IP address settings are appropriate. This problem may be resolved by delaying the startup of network communications for the machine. (See "Startup Time Settings," on p. 3-42.)

Cause 3 NetBIOS network is not properly set up.

Remedy Confirm that SMB and WINS are properly set up.

Cause 4 The IPv4 address of the computer from which data (print/fax/I-fax job) is to be sent to the machine is not permitted by the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 Settings screen.

Remedy Check the settings for <RX/Print Range> in [IP Address Range Settings] on the IPv4 Settings screen. (See step 17 in "TCP/IP Settings (IPv4)," on p. 3-3.)

Cause 5 The computer that is printing is not properly set up.

Remedy Check the following:

- Confirm that the proper printer driver is installed. If you are printing from Windows, each computer must have a printer driver installed.
- For instructions on how to install printer drivers, see the *Driver Guide*.
- Confirm that the correct printer is set as the output destination for the computer that is printing. Confirm the output destination in [Printer] in [Control Panel].

Cause 6 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

Unable to Print from an AppleTalk Network

Cause 1 The machine and cable are not properly connected.

Remedy Turn OFF the machine's power switches, check that the machine is connected to the network using the proper cable, and then turn them ON. (See "Connecting the Machine to a Computer or Network," on p. 2-3.)

Cause 2 The AppleTalk network is not properly set up.

Remedy Confirm the AppleTalk settings.
In particular, check the following:
Set the [Phase] to a valid phase type.
Set the [Zone] to the zone to which the printer belongs.

NOTE

Your computer may not be able to recognize the machine even though the IP address settings are appropriate. This problem may be resolved by delaying the startup of network communications for the machine. (See "Startup Time Settings," on p. 3-42.)

Cause 3 The computer that is printing is not properly set up.

Remedy Check the following Macintosh settings:

- Confirm that the proper printer driver is installed.

- Confirm that the proper printer has been selected as the destination.
- Confirm that [AppleTalk] is active.
- Confirm that the AppleTalk connection method is EtherTalk or Ethernet.

Cause 4 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

Data Sending/File Sharing Problems and Remedies

This section describes how to resolve data sending/file sharing problems.

Unable to Send Data/Share Files (FTP)

Cause 1 The FTP server is not set correctly.

Remedy Perform the following to check the server status. (If you are using Windows, perform these from the MS-DOS prompt or the command prompt.)

- Example using UNIX, where the FTP server has the IP address: 192.168.1.195

```
U:>ftp 192.168.1.195          *Connect to server
Connected to 192.168.37.195.
220 canmfs FTP server (UNIX(r) System V Release 4.0) ready.
User (192.168.37.195:(none)): user_name          *User login
331 Password required for user_name.
Password:          *Enter password
230 User user_name logged in.
ftp> cd /export/share          *Move to data destination directory
250 CWD command successful.
ftp> bin          *Set data transfer type (binary)
200 Type set to I.
ftp> put sample.tif          *Set transfer file name for verification
ftp> by          *Cut off server connection
221 Goodbye
```

NOTE

If the above are confirmed and file sharing still does not operate normally, consult the network administrator for the environment you are using.

Cause 2 The machine's address [User] setting contains one or more spaces after the user name.

Remedy Ensure that the machine's address [User] setting does not contain spaces after the user name.

Cause 3 The machine was turned OFF while sending data to the FTP server, and when the machine was turned back ON, it attempted to resend the data. (If a Windows 2000/XP/Server 2003/Vista FTP server is being used.)

Remedy If power to the machine is turned OFF while data is being sent to the FTP server, the FTP server may hold the data in a writing-in-progress state. Therefore, this data cannot be overwritten even when the machine reconnects and sends the same data again. Stop the FTP server temporarily and delete the held data, so it can be sent again.

Cause 4 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

Unable to Send Data/Share Files (NetWare)

Cause 1 File sharing settings for the NetWare file server are incorrect. (In Bindery Mode.)

Remedy Check the following settings:

- Use your computer to log in to the NetWare file server.
  From Windows Explorer, double-click [Entire Network] → check that the NetWare server you want to share is listed there.
  You can also check for the NetWare server as follows: On the [Start] menu, point to [Find] → click [Computer] → enter the name of the server you want to share → check that the server is on the network. (This server name will be the [Host Name] you entered when you set up the recipient settings.)
- Open the server → open the folder for file sharing. (The path to this folder will be the [Folder Path] you entered when you set up the recipient settings.)
- Check that files can be written to this folder.

NOTE

If data cannot be sent or file sharing does not work after you do the above, consult your network administrator.

Cause 2 File sharing settings for the NetWare file server are incorrect. (In NDS Mode.)

Remedy Check the following settings:

- Log in as a user with Admin or equivalent authority.
  From Windows Explorer, double-click [Entire Network] → check that the NetWare server you want to share is listed there.
  You can also check for the NetWare server as follows: On the [Start] menu, point to [Find] → click [Computer] → enter the name of the server you want to share → check that the server is on the network.

- Start the NWADMIN for this server. If [Root] is displayed at the upper left corner of the screen, the layer below it is the context. If [Root] is not displayed, go to the [View] menu → click [Go Up a Level] to change to the display below [Root]. (This context will be the value entered to the right side of the expression "o=" when you set up [Host Name] of the recipient.)
- With <Root> appearing on the screen, go to the [View] menu → click [Go Up a Level] to open the [Set Context] dialog box. The tree name will be displayed in [Tree]. (This tree name will be the value you entered to the right side of the expression ".TREE=" when you set up [Host Name] of the recipient.)

NOTE

If data cannot be sent or file sharing will not work after you do the above, consult your network administrator.

Cause 3 There is a print job in the printing queue, and the machine is still receiving this job.

Remedy Send the data after the print job has been completely received. The machine cannot send data while it is receiving a print job.

Cause 4 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

Unable to Send Data/Share Files (Windows and Samba File Sharing)

Cause 1 File sharing settings for the shared folder are incorrect.

Remedy Check the following settings:

- On the computer you are using, go into Windows Explorer → double-click [Entire Network] → check that the computer you want to share is listed there. You can also check for the computer as follows: On the [Start] menu, point to [Find] → click [Computer] → enter the name of the computer you want to share → check that the computer is on the network.
- If the computer you want to share is listed, double-click its icon to see whether the shared name of the folder you want to share is listed.
- If the shared name does not appear, see "Setting Up a Computer as a File Server," on p. 3-57, and then check the shared folder settings.

Cause 2 An error message is displayed on the touch panel display of the machine.

Remedy After confirming the error message, see Chapter 8, "Troubleshooting," in the *Reference Guide* and perform the necessary operations according to the error message displayed.

<Check the server.> is displayed when you try to use a WebDAV server.

Cause The WebDAV server is unavailable.

Remedy Confirm the status of the WebDAV server.

<TCP/IP error> is displayed when you try to send to a WebDAV server.

Cause 1 The IPv4 address is set to '0.0.0.0', because it cannot be obtained automatically via DHCP, RARP, or BOOTP when the IPv4 address setting in SRAM is set to '0.0.0.0'.

Remedy See "TCP/IP Settings (IPv4)," on p. 3-3 to specify the correct IPv4 address.

Cause 2 The static IPv4 address is set to '0.0.0.0' when the IPv4 address setting in SRAM is set to '0.0.0.0'.

Remedy See "TCP/IP Settings (IPv4)," on p. 3-3 to specify the correct IPv4 address.

Cause 3 The IPv6 addresses are not properly set up.

Remedy Check the following:

- Confirm that the settings for the addresses (<Use Stateless Address>, <Use Manual Address>, or <Use DHCPv6>) are set to 'On'.
- If you are using a stateless address or DHCPv6, confirm that addresses can be obtained.
- If addresses cannot be obtained, check the settings of the router or DHCPv6 server.

NOTE

It may take several minutes for a stateless address to be determined.

Cause 4 The IP address of the DNS server is not correct.

Remedy See "TCP/IP Settings (IPv4)," on p. 3-3 or "TCP/IP Settings (IPv6)," on p. 3-18 to check the IP address of the DNS server.

Cause 5 Sending could not be performed due to a lack of resources in the TCP/IP protocol stack.

Remedy Free up sufficient disk space on the WebDAV server.

<SSL Error> is displayed, and transmission fails when you try to send to a destination using SSL encrypted communication via a WebDAV server.

Cause 1 The WebDAV server does not support SSL encrypted communication.

Remedy Specify the SSL settings required for your environment on the WebDAV server.

Cause 2 The proxy server does not support SSL encrypted communication.

Remedy If the WebDAV client is connected to the Internet via a proxy server, set the proxy server to use SSL.

<Could not be sent.> is displayed when you try to send via a WebDAV server.

Cause 1 An error occurred in the WebDAV server or proxy server.

Remedy Check the following:
- Check the settings of the WebDAV server.
- Check the settings of the proxy server.

Cause 2 External access to the target files or directories was denied.

Remedy Check the following:
- Check the settings of the WebDAV server.
- See the *Sending and Facsimile Guide* to confirm the settings for a recipient address.

Cause 3 The WebDAV server is busy because of heavy access.

Remedy Try sending again later.

Cause 4 Sending files in chunks is not allowed.

Remedy Press [Off] for <Use Chunked Encoding with WebDAV Sending>. (See the *Sending and Facsimile Guide*.)

Cause 5 The size of the sent data is too large.

Remedy Confirm the size of the sent data.

Cause 6 The specified URI (host name and folder path specified as the recipient address) is too long.

Remedy See the *Sending and Facsimile Guide* to confirm the full path for the HTTP server entered in [Host Name] and the WebDAV folder path entered in [Folder Path] as the recipient address.

<Check the server.> is displayed when you try to send via a WebDAV server.

Cause 1 The machine tried to access the destination without using a proxy server, but it was necessary to access via a proxy server.

Remedy Check the following:
- Check the settings of the WebDAV server.

- Confirm the proxy server settings (see step 16 in "TCP/IP Settings (IPv4)," on p. 3-3.)

Cause 2 Access to the destination was denied.

Remedy Check the settings of the WebDAV server.

Cause 3 The machine tried to access the destination via a proxy server without using SSL encrypted communication.

Remedy Press [Off] for <Use Chunked Encoding with WebDAV Sending>. (See the *Sending and Facsimile Guide*.)

Cause 4 The proxy server failed to communicate with the upstream server.

Remedy Check the following:

- Check the settings of the WebDAV server.
- Check the settings of the proxy server.

Cause 5 Accroding to the request from the WebDAV client, the HTTP protocol version which is not supported by the WebDAV server is used.

Remedy Check the settings of the WebDAV server.

Cause 6 The disk space on the WebDAV server was insufficient to process the request from the WebDAV client.

Remedy Free up sufficient disk space on the WebDAV server.

<Cannot connect. > is displayed when you try to send to a WebDAV server.

Cause Proxy server authentication failed.

Remedy See step 16 in "TCP/IP Settings (IPv4)," on p. 3-3 to confirm the settings of the proxy server.

Encrypted SSL Data Communication Problems and Remedies

This section describes how to resolve encrypted SSL data communication problems.

<The default key is not set. Check the [Key and Certificate List] settings in the Certificate Settings> is displayed when SSL is set.

Cause The key pair or server certificate to use has not been registered.

Remedy It is necessary to register a key pair and server certificate in order to perform encrypted SSL communication. For instructions on how to register a key pair, see "Generating a Key Pair and Server Certificate," on p. 3-27, or "Registering a Key Pair File and Server Certificate File Installed from a Computer," on p. 3-30.

<Cannot delete the default key when SSL is On, or when the [Receive Restriction for Each Function] setting in Device Information Delivery is Off. Check the SSL or Device Information Delivery setting.> is displayed when you try to erase a key pair.

Cause The key you are trying to erase is currently being used for encrypted SSL communication or used for the [Receive Restriction for Each Function] mode in Device Information Delivery Settings.

Remedy Cancel all SSL settings and encrypted SSL communication. See Chapter 6, "System Manager Settings," in the *Reference Guide* to set all settings for the [Receive Restriction for Each Function] mode in Device Information Delivery Settings to 'On.'

<Cannot change settings because the selected key is being used. Check the SSL or Device Information Delivery setting.> is displayed when you try to erase the default key pair.

Cause The key you are trying to erase is currently being used for encrypted SSL communication or used for the [Receive Restriction for Each Function] mode in Device Information Delivery Settings.

Remedy Cancel all SSL settings and encrypted SSL communication. See Chapter 6, "System Manager Settings," in the *Reference Guide* to set all settings for the [Receive Restriction for Each Function] mode in Device Information Delivery Settings to 'On.'

<Cannot register because the algorithm of this key is not supported.> is displayed when you try to register a key pair file.

Cause You are trying to register a key pair file which uses the DSA algorithm.

Remedy Register a key pair file which uses the RSA algorithm.

You cannot use encrypted SSL communication for IPP printing, email/I-fax, the Remote UI, MEAP functions via a web browser, and device information delivery, or confirm Department IDs and passwords even after you have turned SSL on.

Cause 1 The generated key pair or server certificate is corrupted.

Remedy After erasing the key pair you are using (see "Editing Key Pairs and Server Certificates," on p. 3-31), generate a key pair and server certificate (see "Generating a Key Pair and Server Certificate," on p. 3-27).

Cause 2 The preinstalled default key pair or server certificate is corrupted.

Remedy After erasing the key pair you are using (see "Editing Key Pairs and Server Certificates," on p. 3-31), generate a key pair and server certificate (see "Generating a Key Pair and Server Certificate," on p. 3-27).

Cause 3 The registered key pair file or server certificate file is corrupted.

Remedy After erasing the key pair you are using (see "Editing Key Pairs and Server Certificates," on p. 3-31), using the Remote UI, install the key pair file and server certificate file created on your computer (See the *Remote UI Guide*.). Then, register the installed files on the control panel of the machine (see "Registering a Key Pair File and Server Certificate File Installed from a Computer," on p. 3-30).

NOTE

For instructions on how to confirm whether the key pair you are using is corrupted, see "Editing Key Pairs and Server Certificates," on p. 3-31.

<Certificate exp. date error> is displayed.

Cause The certificate has expired.

Remedy Confirm the expiration date for the certificate.

<Digital sig. cert. access err.> is displayed.

Cause 1 Access to the user certificate was denied when sending a PDF with a user signature.

Remedy See "Generating and Confirming a Key Pair and Device Signature Certificate and User Certificate for Adding Digital Signatures to PDF Files" on p. 3-35 to confirm the user certificate settings.

Cause 2 Access to the device certificate was denied when sending a PDF with a device signature.

Remedy See "Generating and Confirming a Key Pair and Device Signature Certificate and User Certificate for Adding Digital Signatures to PDF Files," on p. 3-35 to confirm the device certificate settings.

Appendix

8
CHAPTER

This chapter includes the network settings, specifications, glossary, and index.

Network Setting Items. 8-2
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Network Setting Items

If you are configuring the settings for the first time in "Interface Settings," on p. 2-9 and "TCP/IP Settings (IPv4)," on p. 3-3 or "TCP/IP Settings (IPv6)," on p. 3-18, use the control panel of the machine. After configuring the TCP/IP settings, you can change them using the Remote UI.

In the NetWare or AppleTalk network, the TCP/IP protocol must be used to specify the settings with software other than the control panel of the machine.

The setting items are shown below.

IMPORTANT

If you are using the optional imagePASS, see the manual provided with the optional imagePASS for more information on the settings (other than for e-mail/I-fax settings).

NOTE

- Some items can be set using the Remote UI. Use the control panel of the device to set items which cannot be set using the Remote UI.
- In the following tables, "N/A" stands for "Not Applicable".
- For more information on Device Information Delivery, see Chapter 6, "System Manager Settings," in the *Reference Guide*.

■ Change Settings/Display Connection Confirm.

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Change Settings/ Display Connection Confirm.	On/Off	Off	N/A	✓

■ TCP/IP Settings

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
IPv4 Settings: IP Address Settings				
IP Address	IP address	0.0.0.0	✓	N/A
Subnet Mask	IP address	0.0.0.0	✓	N/A
Gateway Address	IP address	0.0.0.0	✓	N/A
DHCP	On/Off	Off	✓	✓
RARP	On/Off	Off	✓	✓
BOOTP	On/Off	Off	✓	✓
IPv4 Settings: PING Command				
PING Command	IP Address	0.0.0.0	N/A	N/A
IPv4 Settings: IP Address Range Settings*1				
RX/Print Range: Reject IPv4 Address	Apply Settings: On/Off Up to 8 IPv4 addresses can be stored.	Off	✓	N/A
RX/Print Range: Permit IPv4 Address	Apply Settings: On/Off Up to 8 IPv4 addresses can be stored.	Off	✓	N/A
Setting/Browsing Range: Reject IPv4 Address	Apply Settings: On/Off Up to 8 IPv4 addresses can be stored.	Off	✓	N/A
Setting/Browsing Range: Permit IPv4 Address	Apply Settings: On/Off Up to 8 IPv4 addresses can be stored.	Off	✓	N/A

*1 This item is available only if you are using the following optional equipment:
- UFR II/PCL/PS Printer Kit
- Super G3 FAX Board
- Universal Send Kit

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
IPv6 Settings: Use IPv6				
Use IPv6	On/Off	Off	✓	N/A
IPv6 Settings: Stateless Address Settings				
Use Stateless Address	On/Off	On	✓	N/A
IPv6 Settings: Manual Address Settings				
Use Manual Address	On/Off	Off	✓	N/A
Manual Address	IPv6 Address (39 Characters maximum)	-	✓	N/A
Prefix Length	0 to 128	64	✓	N/A
Default Router Addr.	39 Characters maximum	-	✓	N/A
IPv6 Settings: Use DHCPv6				
Use DHCPv6	On/Off	Off	✓	✓

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
IPv6 Settings: PING Command				
IPv6 Address	39 Characters maximum	-	✓	N/A
Host Name	48 Characters maximum	-	✓	N/A
IPv6 Settings: IP Address Range Settings*1				
RX/Print Range: Reject IPv6 Address	Apply Settings: On/Off Up to 8 IPv6 addresses can be stored.	Off	✓	N/A
RX/Print Range: Permit IPv6 Address	Apply Settings: On/Off Up to 8 IPv6 addresses can be stored.	Off	✓	N/A
Setting/Browsing Range: Reject IPv6 Address	Apply Settings: On/Off Up to 8 IPv6 addresses can be stored.	Off	✓	N/A
Setting/Browsing Range: Permit IPv6 Address	Apply Settings: On/Off Up to 8 IPv6 addresses can be stored.	Off	✓	N/A
DNS Settings: DNS Server Address Settings: IPv4				
Primary DNS Server	IP Address	0.0.0.0	✓	N/A
Secondary DNS Server	IP Address	0.0.0.0	✓	N/A
DNS Settings: DNS Server Address Settings: IPv6				
Primary DNS Server	IPv6 Address	-	✓	N/A
Secondary DNS Server	IPv6 Address	-	✓	N/A

*1 This item is available only if you are using the following optional equipment:
- UFR II/PCL/PS Printer Kit
- Super G3 FAX Board
- Universal Send Kit

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
DNS Settings: DNS Host Name/Domain Name Settings: IPv4				
Host Name	47 Characters maximum	CANON****** ("******" represents the last six digits of a MAC address)	✓	N/A
Domain Name	47 Characters maximum	(NULL)	✓	N/A
DNS Settings: DNS Host Name/Domain Name Settings: IPv6				
Use Same Host Name/ Domain Name as IPv4	On/Off	Off	✓	N/A
Host Name	47 Characters maximum	CANON****** ("******" represents the last six digits of a MAC address)	✓	N/A
Domain Name	47 Characters maximum	-	✓	N/A
DNS Settings: DNS Dynamic Update Settings: IPv4				
DNS Dynamic Update	On/Off	Off	✓	N/A
DNS Settings: DNS Dynamic Update Settings: IPv6				
DNS Dynamic Update	On/Off	Off	✓	N/A
Register Stateless Address	On/Off	Off	✓	N/A
Register Manual Address	On/Off	Off	✓	N/A
Register Stateful Address	On/Off	Off	✓	N/A

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
WINS Configuration				
WINS Resolution	On/Off	Off	✓	N/A
WINS Server Address	IP Address	0.0.0.0	✓	N/A
Node Type	Auto Set, display only	-	-	N/A
Scope ID	63 Characters maximum	(NULL)	✓	N/A
LPD Print Settings*2				
LPD Print Settings	On/Off	On	✓	✓
LPD Banner Page*3	On/Off	Off	✓	✓
RAW Print Settings*2				
RAW Print Settings	On/Off	On	✓	✓
Bidirectional Communication	On/Off	Off	✓	✓
SNTP Settings				
Use SNTP	On/Off	Off	✓	N/A
Polling Interval	Interval for performing time synchronization (1 to 48 hours)	24	✓	N/A
NTP Server Address	IP address or host name	(NULL)	✓	N/A
NTP Server Check	-	-	✓	N/A

*2 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key, or the optional Super G3 FAX Board is installed.

*3 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key.

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
FTP Print Settings*3				
Use FTP printing	On/Off	On	✓	✓
User	User name for FTP server login (24 Characters maximum)	(NULL)	✓	N/A
Password	Password for FTP server login (24 Characters maximum)	(NULL)	✓	N/A
WSD Print Settings*2				
Use WSD	On/Off	On	✓	✓
Use WSD Browsing	On/Off	On	✓	✓
Use Multicast Discovery	On/Off	On	✓	✓
Use PASV Mode for FTP*4				
Use PASV Mode for FTP	On/Off	Off	✓	✓
IPP Print Settings*2				
IPP Print Settings	On/Off	On	✓	✓
Use SSL	On/Off	Off	✓	N/A
Use Authentication	On/Off	Off	✓	N/A
User	User name for IPP authentication (24 Characters maximum)	(NULL)	✓	N/A
Password	Password for IPP authentication (24 Characters maximum)	(NULL)	✓	N/A

*2 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key, or the optional Super G3 FAX Board is installed.

*3 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key.

*4 This item is available only if the optional Universal Send Kit is activated by registering a license key.

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Multicast Discovery				
Response	On/Off	On	✓	✓
Scope Name	Scope name to be used for a multicast discovery (32 Characters maximum)	(default)	✓	N/A
Certificate Settings: Generate Key: Generate SSL Key				
Key Name	24 Characters maximum	(NULL)	✓	N/A
Key Algorithm	RSA, display only	-	-	N/A
Key Length (bit)	512/1024	512	✓	N/A
Start Date of Validity	Month, Date, Year (01/01/2000 - 12/31/2048)	(NULL)	✓	N/A
End Date of Validity	Month, Date, Year (01/01/2000 - 12/31/2048)	(NULL)		
Country/Region	Country/Region name and code (2 Characters maximum)	United States (US)		
State	24 Characters maximum	(NULL)		
City	24 Characters maximum	(NULL)		
Organization	24 Characters maximum	(NULL)		
Orgnztion Unit	24 Characters maximum	(NULL)		
Common Name	IP address or FQDN (24 Characters maximum)	(NULL)		

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Certificate Settings: Generate Key				
Generate/Update Device Signature Key*5	-	-	✓	N/A
Certificate Settings: Key and Certificate List: Key and Certificate List for this Machine				
Default Key Settings	-	-	✓	N/A
Certificate Details	Version/Serial Number/ Signature Algorithm/ Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Certificate Thumbprint/ Certificate Verification	-	✓	N/A
Erase	-	-	✓	N/A
Certificate Settings: Key and Certificate List: Key and Certificate List for Users*6				
Certificate Details	Version/Serial Number/ Signature Algorithm/ Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Certificate Thumbprint/Certificate Verification	-	✓	N/A
Erase	-	-	✓	N/A

*5 [Generate/Update Device Signature Key] is enabled if the optional Universal Send PDF Security Feature Set is activated by registering a license key.

*6 [Key and Certificate List for Users] is enabled if the optional Digital User Signature PDF Kit is activated by registering a license key.

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Certificate Settings: CA Certificate List				
Certificate Details	Version/Serial Number/ Signature Algorithm/ Issue Destination/Start Date of Validity/End Date of Validity/Issuer/ Public Key/Certificate Thumbprint/ Certificate Verification	-	✓	N/A
Erase	-	-	✓	N/A
Certificate Settings: Register Key and Certificate				
Register	Key Name (24 Characters maximum) Password (24 Characters maximum)	-	✓	N/A
Erase	-	-	✓	N/A
Certificate Settings: Register CA Certificate				
Register	-	-	✓	N/A
Erase	-	-	✓	N/A

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Use HTTP				
Use HTTP	On/Off	On	✓	✓
Proxy Settings*7				
Use Proxy	On/Off	On	✓	N/A
Server Address	IP address or FQDN (128 Characters maximum)	(NULL)	✓	N/A
Port Number	1 to 65535	80	✓	N/A
Use Proxy within the Same Domain	On/Off	Off	✓	N/A
Authentication Settings				
Use Proxy Authentication	On/Off	Off	✓	N/A
User	24 Characters maximum	(NULL)	✓	N/A
Password	24 Characters maximum	(NULL)	✓	N/A

*7 This item is available only if the optional UFR II/PCL/PS Printer Kit or the optional Web Access Software is activated by registering a license key.

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Permitted Receiving MAC Address Settings				
Permitted Receiving MAC Address Settings	Apply Settings: On/Off MAC addresses (a maximum of 100 addresses can be registered)	Off	✓	N/A
Dept. ID Management Password Confirmation*2				
Dept. ID Management Password Confirmation	On/Off	On	✓	N/A

*2 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key, or the optional Super G3 FAX Board is installed.

■ NetWare Settings*1

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
NetWare	On/Off	Off	✓	✓
Frame Type	Auto Detect/Ethernet II/ Ethernet 802.2/Ethernet 802.3/Ethernet SNAP	Auto Detect	✓	N/A
IPX External Network Number	Auto Set, display only	-	-	N/A
Node Number	Auto Set, display only	-	-	N/A
Print Service	Bindery PServer/ RPrinter/NDS PServer/ NPrinter	NDS PServer	✓	N/A
Packet Signature	Auto Set, display only	-	-	N/A

*1 This item is available only if you are using the following optional equipment:
- UFR II/PCL/PS Printer Kit
- Super G3 FAX Board
- Universal Send Kit

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Bindery PServer Settings				
Print Server	47 Characters maximum	(NULL)	✓	N/A
File Server	47 Characters maximum	(NULL)	✓	N/A
Print Server Password	20 Characters maximum	(NULL)	✓	N/A
Printer Number	0 to 15	0	✓	N/A
Polling Interval	1 to 15 seconds	5	✓	N/A
Printer Form	0 to 255	0	✓	N/A
Buffer Size	1 to 20 (KB units)	20	✓	N/A
Service Mode	Service only currently mounted form/ Change forms as needed/ Minimize form changes across print queues/ Minimize form changes within print queues	Minimize form changes within print queues	✓	N/A
RPrinter Settings				
Print Server	47 Characters maximum	(NULL)	✓	N/A
File Server	47 Characters maximum	(NULL)	✓	N/A
Printer Number	0 to 15	0	✓	N/A

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
NDS PServer Settings				
Print Server	64 Characters maximum	(NULL)	✓	N/A
Tree	32 Characters maximum	(NULL)	✓	N/A
Context	256 Characters maximum	(NULL)	✓	N/A
Print Server Password	20 Characters maximum	(NULL)	✓	N/A
Printer Number	0 to 254	0	✓	N/A
Polling Interval	1 to 255 seconds	5	✓	N/A
Printer Form	0 to 255	0	✓	N/A
Buffer Size	3 to 20 (KB units)	20	✓	N/A
Service Mode	Service only currently mounted form/ Change forms as needed/ Minimize form changes across print queues/ Minimize form changes within print queues	Minimize form changes within print queues	✓	N/A
NPrinter Settings				
Print Server	64 Characters maximum	(NULL)	✓	N/A
Tree	32 Characters maximum	(NULL)	✓	N/A
Context	256 Characters maximum	(NULL)	✓	N/A
Printer Number	0 to 254	0	✓	N/A

■ AppleTalk Settings*1

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
AppleTalk	On/Off	Off	✓	✓
Phase	Phase 2 (fixed)	-	-	N/A
Service Name	32 Characters maximum	Model name	✓	N/A
Zone	32 Characters maximum	*	✓	N/A

*1 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key.

■ SMB Server Settings*1

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Use SMB Server	On/Off	On	✓	N/A
Server	15 Characters maximum	(NULL)	✓	N/A
Workgroup	15 Characters maximum	(NULL)	✓	N/A
Comment	48 Characters maximum	(NULL)	✓	N/A
LM Announce	On/Off	Off	✓	N/A
SMB Printer Settings				
Use SMB	On/Off	On	✓	N/A
Printer	13 Characters maximum	(NULL)	✓	N/A

*1 This item is available only if you are using the following optional equipment:
- UFR II/PCL/PS Printer Kit
- Super G3 FAX Board
- Universal Send Kit

■ SNMP Settings

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Get Printer Mgmt Info from Host	On/Off	Off	✓	✓
Use SNMP v. 1	On/Off	On	✓	✓
Community Name 1 Settings				
Community Name 1	On/Off	On	✓	N/A
MIB Access Permission	Read/Write/Read Only	Read Only	✓	N/A
Community Name	Community Name (32 Characters maximum)	public	✓	N/A
Community Name 2 Settings				
Community Name 2	On/Off	Off	✓	N/A
MIB Access Permission	Read/Write/Read Only	Read Only	✓	N/A
Community Name	Community Name (32 Characters maximum)	public2	✓	N/A
Use SNMP v. 3	On/Off	Off	✓	N/A
User Settings				
User On/Off	-	-	✓	N/A
Register	User/MIB Access Permission/Security Settings/Authent. Algorithm/Authent. Password/Encryption Algorithm/Encryption Password	-	✓	N/A
Details/Edit	User/MIB Access Permission/Security Settings/Authent. Algorithm/Authent. Password/Encryption Algorithm/Encryption Password	-	✓	N/A
Erase	-	-	✓	N/A

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Context Settings				
Register	Context name (32 Characters maximum)	-	✓	N/A
Edit	Context name (32 Characters maximum)	-	✓	N/A
Erase	-	-	✓	N/A

■ Enable Dedicated Port Settings

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Enable Dedicated Port	On/Off	On	✓	✓

■ Spool Settings*1

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Use Spooler	On/Off	On	✓	✓

*1 This item is available only if the optional UFR II/PCL/PS Printer Kit is activated by registering a license key, or the optional Super G3 FAX Board is installed.

■ Startup Time Settings

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Startup Time Settings	0 to 300 seconds	60	✓	N/A

■ Ethernet Driver Settings

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Auto Detect	On/Off	On	✓	N/A
Communication Mode	Half Duplex/Full Duplex	Half Duplex	✓	N/A
Ethernet Type	10 Base-T/100 Base-TX	10 Base-T	✓	N/A
MAC Address	Display only	-	-	N/A

■ E-Mail/I-Fax Settings*1

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
SMTP Receipt	On/Off	On	✓	✓
POP	On/Off	On	✓	✓
SMTP Server	Server name or IP address (48 Characters maximum)	(NULL)	✓	N/A
E-mail Address	64 Characters maximum	(NULL)	✓	N/A
POP Server	Server name or IP address (48 Characters maximum)	(NULL)	✓	N/A
POP Address	64 Characters maximum	(NULL)	✓	N/A
POP Password	32 Characters maximum	(NULL)	✓	N/A
POP Interval	0 to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.)	0	✓	N/A

*1 This item is available only if the optional Universal Send Kit is activated by registering a license key.

Item	Setting Description	Default Setting	Can be set in Remote UI	Device Information Delivery
Authent./Encryption				
POP AUTH Method	Standard/APOP/POP AUTH	Standard	N/A	✓
POP Authentication before Sending	On/Off	Off	N/A	N/A
SMTP Authentication (SMTP AUTH)	On/Off	Off	N/A	N/A
User	User name for SMTP authentication (64 Characters maximum)	(NULL)	N/A	N/A
Password	Password for SMTP authentication (32 Characters maximum)	(NULL)	N/A	N/A
Allow SSL (POP)	On/Off	Off	N/A	N/A
Allow SSL (SMTP Send)	On/Off	Off	N/A	N/A
Allow SSL (SMTP Receive)	SSL/On/Off	Off	N/A	N/A

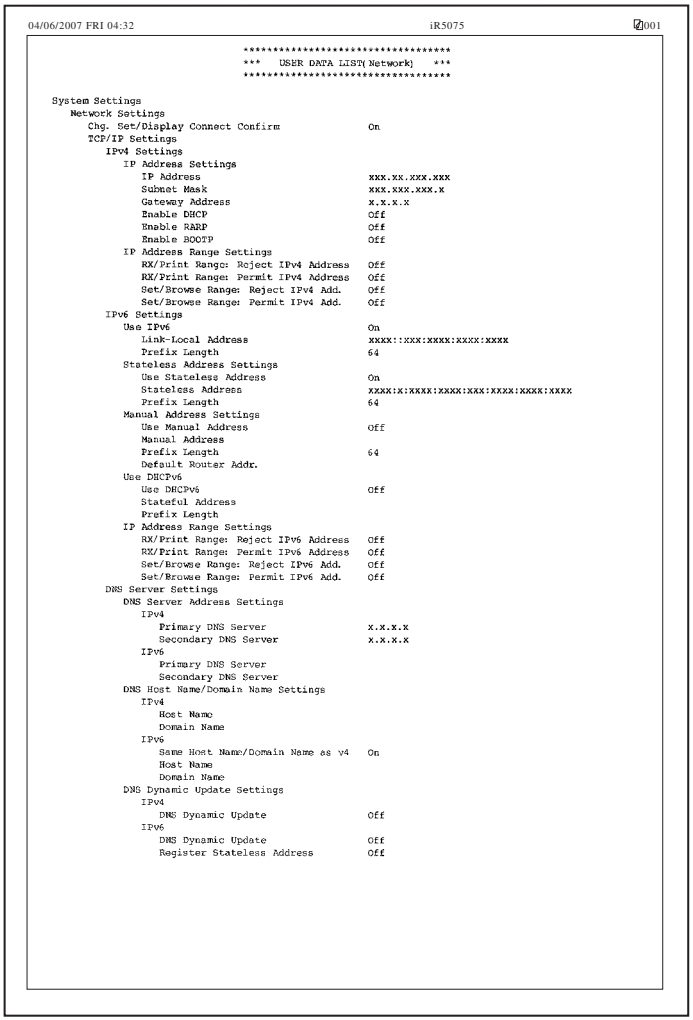
NOTE

Use the control panel of the device to set items which cannot be set using the Remote UI.

Confirming Settings

You can print a user's data list to confirm the network settings made from the machine's touch panel display.

To print the Network user's data list shown below, press [Report Settings] → [Network] → [User Data List] → [Yes] on the Additional Functions screen.



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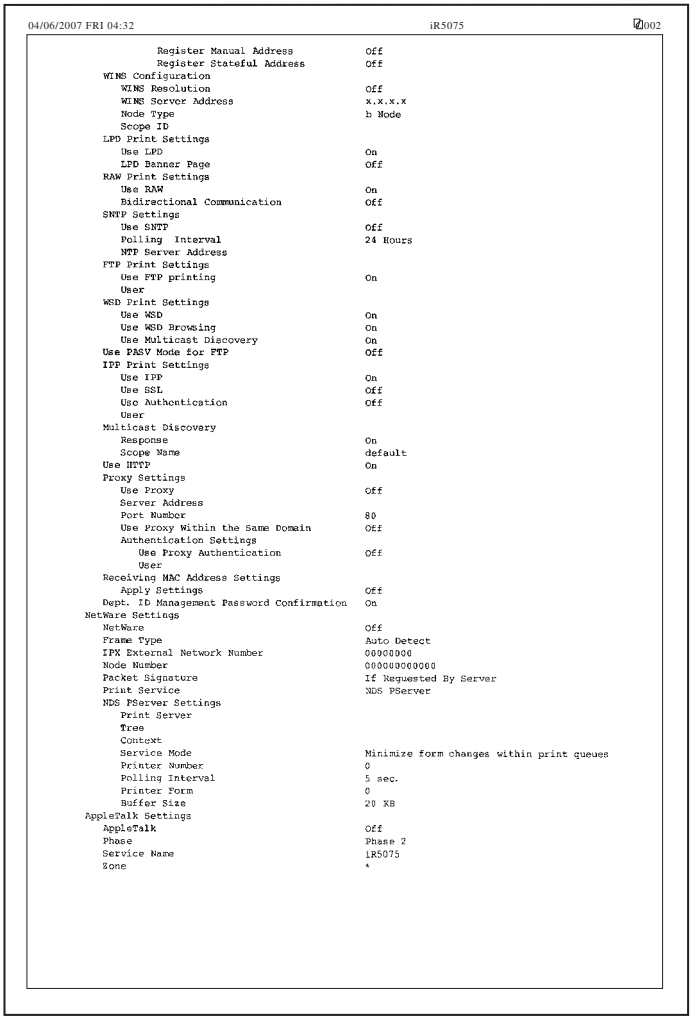
```
                    **********************************
                    ***   USER DATA LIST(Network)   ***
                    **********************************

System Settings
   Network Settings
      Chg. Set/Display Connect Confirm              On
      TCP/IP Settings
         IPv4 Settings
            IP Address Settings
               IP Address                           xxx.xx.xxx.xxx
               Subnet Mask                          xxx.xxx.xxx.x
               Gateway Address                      x.x.x.x
               Enable DHCP                          Off
               Enable RARP                          Off
               Enable BOOTP                         Off
            IP Address Range Settings
               RX/Print Range: Reject IPv4 Address  Off
               RX/Print Range: Permit IPv4 Address  Off
               Set/Browse Range: Reject IPv4 Add.   Off
               Set/Browse Range: Permit IPv4 Add.   Off
         IPv6 Settings
            Use IPv6                                On
               Link-Local Address                   xxxx::xxx:xxxx:xxxx:xxxx
               Prefix Length                        64
            Stateless Address Settings
               Use Stateless Address                On
               Stateless Address                    xxxx:x:xxxx:xxxx:xxx:xxxx:xxxx:xxxx
               Prefix Length                        64
            Manual Address Settings
               Use Manual Address                   Off
               Manual Address
               Prefix Length                        64
               Default Router Addr.
            Use DHCPv6
               Use DHCPv6                           Off
               Stateful Address
               Prefix Length
            IP Address Range Settings
               RX/Print Range: Reject IPv6 Address  Off
               RX/Print Range: Permit IPv6 Address  Off
               Set/Browse Range: Reject IPv6 Add.   Off
               Set/Browse Range: Permit IPv6 Add.   Off
         DNS Server Settings
            DNS Server Address Settings
               IPv4
                  Primary DNS Server                x.x.x.x
                  Secondary DNS Server              x.x.x.x
               IPv6
                  Primary DNS Server
                  Secondary DNS Server
            DNS Host Name/Domain Name Settings
               IPv4
                  Host Name
                  Domain Name
               IPv6
                  Same Host Name/Domain Name as v4  On
                  Host Name
                  Domain Name
            DNS Dynamic Update Settings
               IPv4
                  DNS Dynamic Update                Off
               IPv6
                  DNS Dynamic Update                Off
                  Register Stateless Address        Off
```



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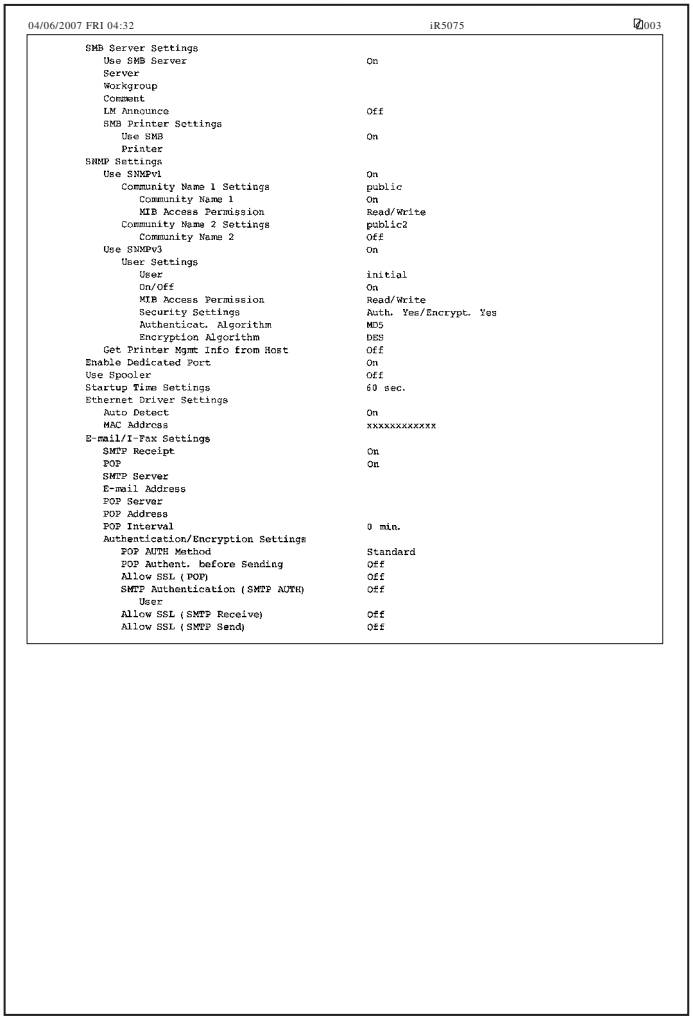
Register Manual Address	Off
Register Stateful Address	Off
WINS Configuration	
WINS Resolution	Off
WINS Server Address	x.x.x.x
Node Type	b Mode
Scope ID	
LPD Print Settings	
Use LPD	On
LPD Banner Page	Off
RAW Print Settings	
Use RAW	On
Bidirectional Communication	Off
SNTP Settings	
Use SNTP	Off
Polling Interval	24 Hours
NTP Server Address	
FTP Print Settings	
Use FTP printing	On
User	
WSD Print Settings	
Use WSD	On
Use WSD Browsing	On
Use Multicast Discovery	On
Use PASV Mode for FTP	Off
IPP Print Settings	
Use IPP	On
Use SSL	Off
Use Authentication	Off
User	
Multicast Discovery	
Response	On
Scope Name	default
Use HTTP	On
Proxy Settings	
Use Proxy	Off
Server Address	
Port Number	80
Use Proxy Within the Same Domain	Off
Authentication Settings	
Use Proxy Authentication	Off
User	
Receiving MAC Address Settings	
Apply Settings	Off
Dept. ID Management Password Confirmation	On
NetWare Settings	
NetWare	Off
Frame Type	Auto Detect
IPX External Network Number	00000000
Node Number	000000000000
Packet Signature	If Requested By Server
Print Service	NDS PServer
NDS PServer Settings	
Print Server	
Tree	
Context	
Service Mode	Minimize form changes within print queues
Printer Number	0
Polling Interval	5 sec.
Printer Form	0
Buffer Size	20 KB
AppleTalk Settings	
AppleTalk	Off
Phase	Phase 2
Service Name	iR5075
Zone	*



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SMB Server Settings	
Use SMB Server	On
Server	
Workgroup	
Comment	
LM Announce	Off
SMB Printer Settings	
Use SMB	On
Printer	
SNMP Settings	
Use SNMPv1	On
Community Name 1 Settings	public
Community Name 1	On
MIB Access Permission	Read/Write
Community Name 2 Settings	public2
Community Name 2	Off
Use SNMPv3	On
User Settings	
User	initial
On/Off	On
MIB Access Permission	Read/Write
Security Settings	Auth. Yes/Encrypt. Yes
Authenticat. Algorithm	MD5
Encryption Algorithm	DES
Get Printer Mgmt Info from Host	Off
Enable Dedicated Port	On
Use Spooler	Off
Startup Time Settings	60 sec.
Ethernet Driver Settings	
Auto Detect	On
MAC Address	xxxxxxxxxxxx
E-mail/I-Fax Settings	
SMTP Receipt	On
POP	On
SMTP Server	
E-mail Address	
POP Server	
POP Address	
POP Interval	0 min.
Authentication/Encryption Settings	
POP AUTH Method	Standard
POP Authent. before Sending	Off
Allow SSL (POP)	Off
SMTP Authentication (SMTP AUTH)	Off
User	
Allow SSL (SMTP Receive)	Off
Allow SSL (SMTP Send)	Off

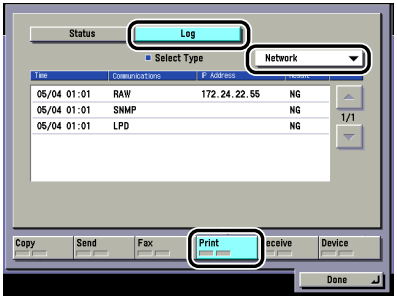
Viewing the Network Access Log

This machine logs attempts to gain access from IP addresses that it has been set to reject. The procedure for referring to the access log is as follows.
For instruction on how to set the machine to permit or reject specific IP addresses, see step 17 in "TCP/IP Settings (IPv4)," on p. 3-3 or step 6 in "TCP/IP Settings (IPv6)," on p. 3-18.

NOTE

To display [Log], set <Job Log Display> in [System Monitor Screen Restriction] in the System Settings screen (from the Additional Functions screen) to 'On'.

1 Press [System Monitor] → [Print] → [Log] → select [Network] from the drop-down list.



The log pertaining to the rejected IP addresses is displayed.

Up to 100 logs can be displayed.

You can export the log to a CSV format file, using the Remote UI. For instructions, see the *Remote UI Guide*.

Obtaining the Public Key of the Machine to Use SSL with Windows Vista

If you want to use IPPS printing, it is necessary to obtain the public key of the machine and install it in Windows Vista by following the procedure below.

1. **Start the Remote UI of the machine → click [Continue to this website (not recommended)] to display the Remote UI screen.**
2. **Double-click [Internet | Protected Mode:On], located on the bottom-right of the web browser.**
3. **Select [Trusted sites] → click [Sites].**
4. **Confirm that 'https://<IP address of the machine>' is displayed → click [Add] → [Close].**
5. **If [Enable Protected Mode (requires restarting Internet Explorer)] is selected, deselect it → click [OK] to return to the Remote UI screen → close the web browser → restart the web browser → repeat the procedure in step 1.**
6. **Click [Certificate Error] on the right of the address bar → select [View certificates].**
7. **Click [Install Certificate] in the displayed dialog box to start the Certificate Import Wizard.**
8. **Click [Next] → select [Place all certificates in the following store] → click [Browse].**
9. **Select [Trusted Root Certification Authorities] → follow the instructions on the screen to close the wizard.**

10 **If you deselected [Enable Protected Mode (requires restarting Internet Explorer)] in step 5, select it again.**

Specifications

Specifications are subject to change without notice.

Hardware Specifications

Network Interface	10Base-T/100Base-TX (RJ-45)

Software Specifications

Protocol Supported		
TCP/IP	Frame type: Print applications:	Ethernet II LPD/Raw/IPP/IPPS/FTP/WSD*1
IPX/SPX	Frame type: Print applications:	Ethernet II/Ethernet 802.2/Ethernet 802.3/ Ethernet SNAP/Auto Detect Bindery PServer/NDS PServer/RPrinter/ NPrinter
NetBIOS*1	Frame type: Print application:	Ethernet II SMB
AppleTalk	Frame type: Print application:	Ethernet SNAP PAP (Printer Access Protocol)

*1 IPv6 is not supported.

Glossary

Numerics

10Base-T

The Ethernet standard supporting data transfer rates up to 10 Mbps, which utilizes a twisted-pair cable.

100Base-TX

The Ethernet standard supporting data transfer rates up to 100 Mbps, which utilizes two pairs of high-grade twisted-pair cables.

A

Activity Report

A record listing all documents that have been sent and received.

ADF

Automatic Document Feeder. Originals placed in the feeder are automatically fed sheet by sheet to the platen glass for scanning. The feeder also automatically turns over two-sided originals to make one- or two-sided prints.

Apache

A free open-source HTTP (Web) server that runs on different platforms, such as Mac OS, UNIX, Windows XP/2000, etc.

ASCII code

ASCII (American Standard Code for Information Interchange) is a set of standardized codes used to represent letters, numbers, punctuation marks, a few symbols, and control characters. A seven digit (or seven bit) binary number can represent one of 128 distinct codes.

Authentication

A system process which validates a user's logon information. The user's name and password must be registered in the system beforehand, and if the system detects a match, access is granted, depending on the user's access rights and permissions.

Auto Redial

When Auto Redial is set to 'On', the machine automatically redials the recipient's facsimile number if the line is busy, or if there is a sending error. The machine will wait two minutes (default) after the initial attempt before redialing. You can specify the number of times that the machine redials, the length of the redial interval, and whether to redial after a transmission error.

B

BOOTP

BOOTstrap Protocol. A protocol that enables a client machine to automatically obtain network setup information from a server over a TCP/IPv4 network. BOOTP enables a client to automatically locate such information as the host name, domain name, and IPv4 address, so that it is not necessary to enter these items manually.

bps

Bits per second. The measure of transmission speed used in relationship to networks and communication lines.

Buffer size

The size of a data area, or buffer, shared by devices or programs working at different speeds or with different priorities. The buffer is designed to prevent one device or process from being held up by another. For this to be possible, the buffer must be set up correctly.

C

CA Certificate

A digital certificate issued by a third party CA (Certificate Authority), to be used for identification purposes in digital business transactions.

Canon Driver Information Assist Service

A software module that specializes in retrieving information from other devices. When you are using a shared printer in the Print Server (Point and Print) environment, it is necessary to install Canon Driver Information Assist Service on the server PC to set up the printer configuration automatically or use the Job Accounting feature.

CCITT/ITU-T

A committee that sets international standards for telecommunications. CCITT/ITU-T was formerly known as CCITT (Consultative Committee for International Telegraph and Telephone), but is now succeeded by ITU-T (International Telecommunications Union-Telecommunications Sector).

Community Name

An identification keyword for SNMP (Simple Network Management Protocol).

Confidential Fax Inbox

A type of inbox for storing received fax/I-fax documents. If received fax/I-fax documents match the forwarding conditions, they are forwarded to the Confidential Fax Inbox corresponding to the forwarding conditions, without being printed. The documents can then be printed whenever necessary. If a password is set for a Confidential Fax Inbox, it is necessary to enter a password to print the documents.

Container object

An object in the directory tree of a NetWare network which can hold other objects. An organizational unit, such as a company department, is a container object. An organizational unit can contain objects representing network resources, such as workstations, servers, and printers.

Context

In NetWare, this indicates the location of an object existing in the directory tree.

Cookie

A file left on a user's computer when the user visits a Web site. A cookie allows the Web site to recognize the user on subsequent visits. Cookies are generally used to enable a user to automatically sign on to certain Web sites and to customize the features offered by such sites.

Copy Ratio/Zoom Ratio

Numeric representation for the reduction or enlargement of an original.

CSV

Comma Separated Value file. An ASCII text file commonly used to store the values held in a table. In the CSV file, commas are used to separate the values of the various columns in the original table, whereas each new line in the CSV file indicates a new row in the original table. Data stored in tables is commonly exported using a CSV file to provide a portable file that can be read by another application that uses the same type of data, but a different file format.

D

Delayed Transmission

Also called "Delayed TX." You can set a time for a document to be sent, and you do not have to be present when the document is sent at the specified time. You can reserve up to 120 delayed transmissions.

Device Information Delivery

Registering device information in your machine enables you to set the machine to deliver the same device information to other imageRUNNER machine models that are connected to the same network. This enables you to easily manage multiple machines at the same time.

Device signature certificate

The device signature certificate, when used with a private key inside the machine, enables you to add a digital signature to a scanned document. This enables the recipient to verify which machine scanned the document.

Device Status Extension

An extension for Windows 2000/XP/Server 2003 that enables you to view information about shared printers, and manage print jobs using your Web browser.

DHCP

Dynamic Host Configuration Protocol. A protocol which automatically specifies the network settings of a client on a TCP/IP network. Many of the settings required to set up TCP/IP, which is the standard protocol of the Internet, can be made automatically using DHCP.

Digital signature

A code that can be attached to an electronically transmitted message, which uniquely identifies the sender.

Direct Sending

Use Direct Sending when the memory is full, and you still need to send a document. Direct Sending scans and sends one page at a time without storing the document in memory. This enables you to send a document even when the memory is full.

DNS

Domain Name System. The system that associates the IP address assigned to a computer with the domain name.

DNS server

Domain Name System server. A server which maintains a database that translates the domain names of Internet servers, such as www.w3.org, into Internet Protocol (IP) addresses, such as "18.176.0.26". This enables clients to connect to a server with a host name rather than a numeric IP address.

Domain

A management concept that divides large scale networks into groups for identifying individual computers and users. The Internet is managed by classifying domains according to geographical location or type (business, organization, educational institution, etc.).

dpi

Dots Per Inch. A measure of screen and printer resolution that is expressed as the number of dots that a device can print or display per linear inch.

E

ECM

Error Correction Mode. Reduces system and line errors when sending or receiving from another fax machine with ECM capability. ECM divides a page into blocks and inspects each block for data lost through poor transmission. If part of the data is missing in a certain block, ECM retransmits that data from the beginning of the block until it confirms that all of the data within the block has been transmitted successfully. In this way, ECM guarantees that a good image can be received at the receiving end. ECM is very effective where the telephone lines are in poor condition. However, ECM slows the transmission speed, and you may turn this mode off, if it is not needed.

Error indicator

The Error indicator blinks a red light when a paper jam occurs or the machine has run out of toner or paper. When the Error indicator maintains a steady red light, contact your local authorized Canon dealer.

Ethernet

An industry standard LAN (Local Area Network) system for connecting multiple computers. Data is sent from one computer to another by dividing it into packets, and the packets reach their destinations smoothly without any collision with other packets.

EtherTalk

An Apple Computer network standard, used to extend an AppleTalk network to an Ethernet network.

F

File formats

File formats are used to save image data. This machine supports three different file formats, TIFF, PDF, and PDF (OCR).

File server

A personal computer or workstation to which two or more users on client personal computers can gain access via a LAN (Local Area Network), to share and use its hard disk drive.

Fine

A resolution mode for sending originals at twice the detail of the Standard resolution mode.

Forwarding

The process of sending a received fax/I-fax document to another destination. For example, if your machine at work receives a document, you can have the machine forward the document to a machine at your home. This machine can also forward documents to a Confidential Fax Inbox.

FQDN

Fully Qualified Domain Name. A full domain name, consisting of its local host name and its domain name. An FQDN is sufficient to ascertain a specific Internet address for any host on the Internet. This (name resolution) process uses DNS (Domain Name System).

Frame type

The packet format that the network adapter of a computer uses to communicate over a network. On Ethernet networks, there are four frame types: Ethernet 802.2, Ethernet 802.3, Ethernet II, and Ethernet SNAP.

FTP

File Transfer Protocol. A client-server protocol enabling a user to transfer files on one computer to and from another computer over a TCP/IP network. The File Transfer Protocol also governs the client program with which the user transfers files.

G

Gamma Correction

An adjustment to the overall brightness of a scanner, monitor, or printer. On your Canon machine, gamma correction refers to the degree of contrast on a printed document.

Gateway Address

The default address of a network or Web site. It provides a single domain name and point of entry to the site.

H

HP-GL/2

A graphics language that enables computer applications to draw graphic images using printers. Images in HP-GL/2 are represented as vector graphics, in which vector objects describe an image in terms of geometric shapes, such as lines and polygons, and fills.

HTTP

HyperText Transfer Protocol. A TCP/IP protocol used for the sending and receiving of HTML (HyperText Mark-up Language) documents, related image and audio/video files, and information relating to the content type, etc. of these files, between clients and servers, via the Internet.

I

I-fax

I-fax (Internet fax) enables you to send and receive a scanned original converted to TIFF (Tagged Image File Format) or PDF (Portable Document Format) image data as an e-mail attachment to/from any I-fax compatible facsimile or personal computer with Internet e-mail functionality.

imagePASS

A free-standing printer controller that supports Adobe Genuine PostScript 3 and PCL 6. It is mainly suited for office environments in which larger print volumes are frequently processed, or for users who use Adobe PostScript 3 or other PostScript applications.

imageWARE

Canon imageWARE is a software suite for business environments that provides functions to efficiently capture, create, manage, and distribute documents. The imageWARE suite also supports on-demand printing and publishing. For more information, please see the imageWARE Web site at http://www.imageware.com.

imageWARE Document Manager Gateway

Software for sending scanned documents from imageRUNNER machines equipped with the Send function, to imageWARE Document Manager folders via the network. imageWARE Document Manager Gateway is a standard feature of both the Workgroup Edition and the Enterprise Edition of imageWARE Document Manager. It consists of two programs: imageWARE Document Manager Gateway Server, which stores the documents, and imageWARE Document Manager Gateway Administrator, which makes the settings for document storage destinations.

Internet Protocol (IP)

The underlying set of networking rules that describes how data is transmitted across the Internet. Internet Protocol enables data from one computer to be split into packets, and sent to another computer with a specific IP address.

IP address

Internet Protocol address. A 32-bit numeric address used by IP (Internet Protocol) to specify a computer or device on the Internet. The IP address is usually written as four numbers delimited by periods. For example, 128.121.4.5.

IPP

Internet Printing Protocol. A protocol used between a client and a print server for carrying out remote printing over the Internet.

IPPS

Internet Printing Protocol Security. A protocol which performs encrypted SSL (Secure Sockets Layer) communication when using IPP.

ITU-T

See CCITT/ITU-T.

J

JBIG

Joint Bi-level Image Experts Group. An experts group file specification that defines a standard for compressing (reducing the size of) image files without any loss in image information. Files containing photographic images in Web pages are generally compressed so they can be transferred across the Internet more quickly. JPEG, the format currently used, causes some loss in image data after compression, and so reduces image quality. JBIG compression overcomes this shortcoming.

JPEG

Joint Photographic Experts Group. An experts group file specification that defines a standard for compressing (reducing the size of) photographic and photorealistic image files. The image compression method used involves some loss of information, and so reduces image quality. Files containing photographic images in Web pages are generally compressed by using the JPEG format so they can be transferred across the Internet more quickly.

K

Key pair

In SSL security, the key pair consists of a public key and a private key. A public key is known to "everyone," and a private or secret key, is known only to the recipient of the message.

L

LAA

Locally Administered Address. When a device is powered ON, its network address is presented to the network. The default network address assigned by the manufacturer at the time of production is known as the UAA (Universally Administered Address), while an address specified by the network administrator to override the UAA is the LAA (Locally Administered Address). Each LAA on a Local Area Network must be unique.

LAN

Local Area Network. A network system formed by linking a server, workstations, devices, and computers, which are all located in the same building or some other relatively limited area.

LDAP

Lightweight Directory Access Protocol. A network protocol that enables you to locate organizations, individuals, and other resources, such as files and printers on a network, whether on the public Internet or on a corporate intranet.

Log on

Entering a user name and password as a means of user authentication to start a computer session or gain access to a service.

Long distance dialing

When dialing or registering long distance numbers, you may need to insert a pause within or after the telephone number. The destination and length of the pause differ depending on the system. Contact your local authorized Canon dealer or local telephone company if you experience difficulty in long distance dialing.

LPD

Line Printer Daemon. A daemon is a program that runs, without human intervention, to accomplish a given task. The Line Printer Daemon controls the flow of print jobs to a printer.

LPR

Line Printer Remote. A UNIX command used to print a file via a TCP/IP network.

LPR2

A Canon software utility that realizes network printing on TCP/IP networks when using the LPR, RAW, or IPP print protocol. Built into the print architecture of Windows, Canon LPR2 enables network users to easily specify port settings for network printing.

M

MAC address

Media Access Control address. The hardware address of the network adapter of a computer connected to a local area network.

MEAP

Multifunctional Embedded Application Platform. A system enabling the installation of the Java platform and Java applications on your machine. Utilization of MEAP also enables you to install and uninstall MEAP applications.

Memory Lock

Usually a document is printed as soon as it is received; but with Memory Lock, all documents received are stored in memory until you enter a password to print them. This enables you to attend to the documents at your own leisure, and prevents printed documents from piling up in the output tray.

Memory RX Inbox

The Memory RX (Receive) Inbox is an inbox for storing received fax/I-fax documents. Received documents are stored in the Memory RX Inbox without being printed. You can print or send the stored documents later, or whenever necessary.

Memory Sending

Memory Sending scans documents into memory before sending them. You can retrieve your original once scanning is complete, and you do not have to wait until sending is complete.

MIB

Management Information Base. A database of objects that can be monitored by a network management system.

N

NAT

Network Address Translation. A standard that converts private IP addresses of a node on an internal private network to one or more public IP addresses on the Internet.

NDPS

Novell Distributed Print Services. A printing system developed by Novell, for managing printers in a network environment.

NetBEUI

NetBIOS Enhanced User Interface. NetBEUI is a network protocol originally designed by IBM, and later extended by Microsoft and Novell. In a small network, NetBEUI is more efficient than other protocols, such as TCP/IP. It is supported natively by IBM operating systems and Microsoft Windows to provide services, such as file sharing and printing.

NetBIOS

Network Basic Input Output System. A program that enables applications on different computers to communicate within a LAN (Local Area Network). NetBIOS is used in Ethernet and Windows 2000/XP/Server 2003/Vista networks.

NetSpot

Network management software that enables the setup and management of multiple printers connected to a network from one central location. A network manager can monitor conditions of network printers, ascertain online/offline status, error status, the amount of paper in cassettes, verify information on mounted fonts, and other readings. All of the functions that are conventionally conducted through the operation panel of the respective machines can be performed from one location.

NetSpot Device Installer

A Canon utility that automatically detects and installs printer drivers on local networks.

NetWare

Novell NetWare. Novell's client-server network operating system for the IBM PC. NetWare uses the IPX/SPX, NetBEUI, or TCP/IP network protocol. NetWare supports MS-DOS, Microsoft Windows, OS/2, and Macintosh clients. NetWare for UNIX gives users access to UNIX hosts.

NTFS

NT File System. A native file system of Windows NT, offering a higher level of security through a file encryption system, as well as native support for file compression. NTFS is also used in Windows 2000/XP/Server 2003 operating systems.

NTP

Network Time Protocol. An Internet protocol used to update the realtime clock in a computer.

O

OS/2

A family of multitasking operating systems developed by IBM for Intel x86-based computers. OS/2 provides a graphical user interface similar to Windows, as well as a command line interface similar to DOS. Add-ons to OS/2 enable it to run DOS and Windows applications.

P

Packet signature

Encrypted signatures used when exchanging data packets to guarantee that a packet really came from the computer that it claims to have come from. Packet signature is designed to prevent packet forgery and unauthorized Supervisor access to a NetWare server.

PASV mode

Passive FTP mode. An alternative mode for initiating FTP connections. In this mode, data transfer is initiated by the FTP client, rather than the FTP server. As corporate firewalls generally reject external data requests from FTP servers, the PASV mode may allow FTP to be used with NAT (Network Address Translation) and with clients behind firewalls, depending on the environment. The PASV mode also ensures that all data flow requests come from inside the network where the client is located.

Pause

You can insert a pause within a telephone number or at the end of a telephone number. A pause is also sometimes required to connect to an outside line, or for overseas fax transmissions to certain countries.

Pause Time

The default settings are two seconds if a pause is inserted within the telephone number (may vary depending on your location), and 10 seconds if a pause is added to the end of the telephone number. Only the length of pauses inside a telephone number, and not those at the end, can be changed.

PBX

Private Branch eXchange. An in-house telephone switching system that interconnects telephone extensions to each other, as well as to the external telephone network. A PBX controls the flow of telephone traffic through instruments, such as paging systems, and automatic callback and dialing.

PCL

Printer Control Language. A protocol originally designed by Hewlett-Packard, enabling PCs to communicate with printers. PCL has become a standard for laser and ink jet printers, and is now supported by most printer manufacturers.

PDF

Portable Document Format. The page description language used in Adobe Systems' Acrobat document exchange system, which is restricted neither by device nor resolution. PDF displays documents in a way that is independent of the original application software, hardware, and operating system used to create those documents. A PDF document can contain any combination of text, graphics, and images.

PDF (OCR)

A file format that performs OCR (Optical Character Recognition) processing on a scanned document. This process extracts any recognizable text data, and adds it as a transparent layer to create a PDF with searchable text. You can search the text using Adobe Reader/Acrobat Reader/Acrobat, or your operating system's search function.

Phase type

Describes an AppleTalk network. Phase 1 refers to the original version of AppleTalk introduced in 1985, which supports LocalTalk and Ethernet networks. Phase 2 refers to the version with extended addressing features, which was introduced in 1989.

PIN Code

Personal Identification Number Code. To prevent unauthorized access to telephone lines, some PBX (Private Branch Exchange) systems require that a PIN code be entered when making a call or sending a document. Depending on the PBX system, the PIN code may be entered before the number as a prefix, or after the number as a suffix. If your PBX needs a PIN code to connect to an outside line, you can specify the user data settings of the machine so that it prompts you for a PIN code every time you dial.

Processing/Data indicator

The Processing/Data indicator blinks a green light when the machine is performing operations, and maintains a steady green light when documents are stored in memory.

Protocol

A set of rules that govern the transmission of data across a network. Examples of protocols are FTP, DHCP, BOOTP, RARP, IPP, TCP/IP, and LDAP.

Proxy server

A server that includes a function for accessing remote servers in place of clients on the local network. Some proxy servers may also include a function for storing the files retrieved from remote servers. This can increase the efficiency of Web browsing by enabling clients to retrieve files from the proxy server that have already been retrieved once, without having to access the remote server again.

PS (PostScript)

Post Script. A representative page descriptive language developed by Adobe, which provides flexible font capability and high-quality graphics, especially for high-resolution printing.

Q

Queue server mode

When the printer is used in NetWare's queue server mode, all print server functions are provided by the printer itself, and no other print server hardware or software is required.

R

RARP

Reverse Address Resolution Protocol. A protocol which associates a network adapter address (MAC address) with an IP (Internet Protocol) address.

Raw

A print application used with Windows 2000/XP/Server 2003/Vista. It can print at higher speeds than LPD (Line Printer Daemon).

Remote UI

Remote User Interface. The Remote UI is software that enables you to perform operations, which are usually performed on the machine's control panel, using a Web browser (such as Netscape Navigator/Communicator or Microsoft Internet Explorer) over a network.

Resolution

The density of dots attained by a device, such as a fax, scanner, or printer, in producing an image. Expressed in terms of dots per inch (dpi). Low resolution causes font characters and graphics to have a jagged appearance. Higher resolution means smoother curves and angles, as well as a better match to traditional typeface designs. Resolution values are represented by horizontal data and vertical data (e.g., 600 x 600 dpi).

Rotary Pulse

Also called "pulse dial." On a rotary pulse telephone, a dial is turned to send pulses to the telephone switching system.

RX

Abbreviation for "Reception/Receiving."

RX Password

The RX Password is needed to send or receive documents to and from a fax machine that uses ITU-T standard subaddresses and passwords. If the passwords on both ends do not match, the fax is not transmitted. Numbers of up to 20 digits, including spaces, asterisks (*), and pound signs (#), can be used for the RX Password.

S

Scanning Area

The area actually scanned is slightly smaller than the size of the original document. Therefore, words or images near the edges of the document may not be scanned. As a result, make sure that there is some margin space on all sides of the document you are sending.

Scope ID

The Scope ID is a character string value that is appended to the NetBIOS name and used in all NetBIOS names for TCP/IP communications. It provides a way for a computer to communicate only with others sharing the same Scope ID.

Sender's Name

Your personal or organization's name. The sender's name, fax number, date, and time are printed on each page you send to the recipient. You can register up to 99 sender names.

Sequential Broadcast

Sequential Broadcasting enables you to send a scanned document to up to 256 destinations simultaneously. If you frequently send documents to the same destinations, it is highly recommended that you register the numbers as a group in a one-touch button for group dialing.

Server certificate

The machine has a preinstalled server certificate and key pair, which enables it to generate a new key pair and self-signed server certificate. This is used for encrypted SSL communications, such as IPP printing, e-mail, I-fax, Remote UI, and delivering device information.

SMB

Server Message Block. A protocol that provides file and printer sharing over a network for Windows computers.

SMB server

Server Message Block server. A server running the SMB protocol.

SMTP

Simple Mail Transfer Protocol. A TCP/IP protocol for sending messages from one computer to another on a network.

SNMP

Simple Network Management Protocol. The network management protocol of TCP/IP. In SNMP, agents, which can be hardware as well as software, monitor the activity of the various devices on the network and report to the network console workstation.

SNMP v. 1

Used for read only access when used in conjunction with SNMP v. 3 for setting MIB Access Permission levels. Can be set to [Read/Write] if security is not necessary.

SNMP v. 3

Management functions of SNMPv. 3 enable different permission levels for security, if used in conjunction with SNMP v. 1.

SNTP

Simple Network Time Protocol. A simplified version of NTP. This protocol enables computers in a network to synchronize their system times with a public time server used around the world. The time public NTP servers provide is generally accurate to within milliseconds.

Spool

Simultaneous Peripheral Operations On-Line. Spooling means putting jobs in a buffer, which is a special area in memory or on a disk. Devices access data at different rates. The buffer provides a holding area where the data is held until the device for which it is meant is ready to access it.

SSL

Secure Sockets Layer. A protocol that ensures security and privacy when transmitting private documents over the Internet.

SSL encryption

SSL uses two keys to encrypt data: a public key, which is known to "everyone," and a private or secret key, which is known only to the recipient of the message.

Stamp

Applies a stamp (about 1/8" (3 mm) in diameter) on the front side of originals after they have been scanned, so that you can distinguish already scanned originals from others.

Standard

Use this setting to send normal, typewritten, or printed documents containing only text and no drawings, photographs, or illustrations. See Fine, Super Fine, and Ultra Fine.

Startup time

If the machine is connected to a switching hub, it may not be able to connect to a network when it is powering ON. This occurs because the spanning tree process, performed between switching hubs, prevents them from communicating with each other immediately after the machine connects to the network. A delay in the startup time is necessary for the machine to connect to the network properly.

Subaddress

Subaddress is the global telecommunications standard specified by the ITU-T (International Telecommunication Union-Telecommunication Standardization Sector). When the remote party's machine supports the same standard, confidential or relayed communications are possible by attaching a subaddress and a password in advance.

Subaddress Books

The main Address Book is subdivided into 10 smaller address books, which are considered subaddress books.

Subnet

A portion of a network, which may be a physically independent network segment, that shares a network address with other portions of the network, and is distinguished by a subnet number.
For example, all devices with IP addresses that start with 255.255.255. would be part of the same subnet.

Subnet Mask

The method used to determine to which subgroup, or subnet, an IP address belongs. On TCP/IP networks, all devices whose IP addresses have the same prefix belong to the same subnet. Dividing a network into subnets is useful for both security and performance reasons.

Super Fine

A resolution mode for sending originals at four times the detail of the Standard resolution mode. If the receiving machine does not support this mode, the document is automatically sent in the Fine mode.

Super G3

Super G3 is a phrase used to describe the generation of fax machines that use ITU-T V.34 standard 33.6 Kbps modems. Super G3 high-speed fax machines allow a transmission time of approximately three seconds per page, which results in reduced telephone line charges.

Switching hub

A network connection box to which a number of computers can be connected. Conventional hubs send each data packet to every connected computer on the network, whereas a switching hub forwards data packets from the network to the appropriate computer, according to the packet's address. Since a switching hub forwards packets only to their intended recipients, it provides greater efficiency.

T

TCP/IP

Transmission Control Protocol/Internet Protocol. The protocol used to connect to the Internet and wide area networks.

Telephone Line Type

Depending on the type of phone line that you have, set the machine to touch tone (T) or pulse (P) dialing.

TIFF

Tagged Image File Format. A file format that saves images as high-density bitmaps, and is suitable for large amounts of image data. The information field (tag) at the start of each image data record indicates the type of data represented.

Tone

Some data services may require that you use tone dialing. If you have a pulse dial telephone, press [Tone] to switch temporarily from pulse to tone dialing when connecting to these data services.

Transmission Time

A fax transmission consists of three stages: the machine that sends the fax connects with the machine receiving it; the fax is then transmitted, after which the sender and the recipient exchange signals to confirm the end of transmission. The transmission time described in this guide is not the total time required for the entire send/receive transaction, but only the time it takes for the machine to transmit the fax document.

TTI

Transmit Terminal Identification. Also called the TX Terminal ID. The TTI is the name of a person or an organization and the facsimile number of the machine that sends a document. In addition to the unit name that you register for the machine, you can create up to 99 sender names that can be used in place of the unit's name when you send a fax document.

TX

Abbreviation for "Transmission/Sending."

U

UFR II

Ultra Fast Rendering II. A printing algorithm for realizing high-speed rendering. UFR II enables processing tasks to be executed and divided appropriately between the host PC and the printer to greatly reduce overall printing time.

Ultra Fine

A resolution mode for sending originals at 16 dots/mm x 15.4 lines/mm (eight times the standard resolution). If the receiving fax machine does not support this mode, the original is automatically sent in the Super Fine or Fine mode.

URL

Uniform Resource Locator. A method for specifying the location of an object on the Internet, such as a Web page. The URL for a Web page would look something like this: "http://www.w3.org/default.htm". Here, "http:" indicates that the resource is supplied using the HTTP protocol, "www.w3.org" is the address of the server containing the Web page, and "default.htm" is the file name under which the Web page is stored on the server.

User signature

Adds a digital signature to a private document, based on the registered user information when logging on using a login service. This prevents unauthorized access and alterations to the signed document.

V

Vector Graphics

See Raster Graphics.

W

Watermark

This feature enables you to apply individual stamps, such as "CONFIDENTIAL," "COPY," or "DRAFT," as well as your own customized stamps, to your printed documents in the form of a watermark.

WebDAV

Web-based Distributed Authoring and Versioning. Enables users to collaboratively edit and manage files on remote Web servers. WebDAV features XML data locking properties, which prevents authors from overwriting each other's changes.

WebDAV server

Web-based Distributed Authoring and Versioning server. Storing files and folders on a WebDAV server enables users to share them over the Internet.

WINS

Windows Internet Name Service. A service for associating a NetBIOS name, which is a computer name or printer name on a NetBIOS network, with an IP address. To use WINS, a WINS server is required.

X

X.509 (DER)

X.509 is a standard for digital key certificates defined by the ITU (International Telecommunications Union). DER (Distinguished Encoding Rules) is a binary encoding format for digital key data.

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